

SONY®

3-758-350-11(1)

Video Cassette Recorder

Operating Instructions

Hi8
EV-S9000E UB

WARNING

To prevent fire or shock hazard, do not expose the unit to rain or moisture.

To avoid electrical shock, do not open the cabinet. Refer servicing to qualified personnel only.

Notice for customers in the United Kingdom

A moulded plug complying with BS1363 is fitted to this equipment for your safety and convenience.

Should the fuse in the plug supplied need to be replaced, a 5 AMP fuse approved by ASTA or BSI to BS1362, (i.e., marked with \triangle or ∇ mark) must be used.

If the plug supplied with this equipment has a detachable fuse cover, be sure to attach the fuse cover after you change the fuse. Never use the plug without the fuse cover. If you should lose the fuse cover, please contact your nearest Sony service station.

Important

If the plug supplied is not suitable for the socket outlets in your home, it should be cut off and an appropriate plug fitted in accordance with the following instructions. The wires in the mains lead are coloured in accordance with the following code:

Blue: Neutral

Brown: Live

As the colours of the wires in the mains lead of this apparatus may not correspond with the coloured markings identifying the terminals in your plug, proceed as follows:

The wire which is coloured blue must be connected to the terminal which is marked with the letter N or coloured black.

The wire which is coloured brown must be connected to the terminal which is marked with the letter L or coloured red.

Do not connect either wire to the earth terminal in the plug which is marked by the letter E or by the safety earth symbol \pm or coloured green or green-and-yellow.

Warning

To prevent shock hazard, do not insert the plug cut off from the mains lead into a socket outlet. This plug cannot be used and should be destroyed.

Precautions

Safety

- Check that the unit's operating voltage is identical with your local power supply. The EV-S9000E AE/B/ NP/UB/VC operates on 220 – 240 V AC, 50 Hz.
- If anything falls into the cabinet, unplug the unit and have it checked by qualified personnel before operating it any further.
- The unit is not disconnected from the mains as long as it is connected to the mains outlet, even if the unit itself has been turned off.
- Unplug the unit from the wall outlet if you do not intend to use it for an extended period of time. To disconnect the cord, pull it out by the plug, never by the cord.

Installing

- Allow adequate air circulation to prevent internal heat buildup.
- Do not place the unit on surfaces (rugs, blankets, etc.) or near materials (curtains, draperies) that may block the ventilation slots.
- Do not install the unit near heat sources such as radiators or air ducts, or in a place subject to direct sunlight, excessive dust, mechanical vibration or shock.
- Do not install the unit in an inclined position. It is designed to be operated in a horizontal position only.
- Keep the unit and cassettes away from equipment with strong magnets, such as microwave ovens or large loudspeakers.
- Do not place heavy objects on the unit.
- If the unit is brought directly from a cold to a warm location, moisture may condense inside the VCR and cause damage to the video head and tape. When you first install the unit, or when you move it from a cold to a warm location, wait for about one hour before operating the unit.

Note

This appliance conforms with EEC Directive 87/308/EEC regarding interference suppression.

Caution

Television programmes, films, video tapes and other materials may be copyrighted. Unauthorised recording of such material may be contrary to the provisions of the copyright laws. Also, use of this recorder with cable television transmission may require authorisation from the cable television transmitter and/or programme owner.

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Welcome!

Thank you for purchasing the Sony Video Cassette Recorder **Hi-B** (VCR). Here are some of the features you'll enjoy with your VCR:

- PCM audio recording system feature that allows you to take advantage of the latest technology in high-grade audio systems
- JOG dial and SHUTTLE ring for easy search operations
- Dual-sided remote for ease of operation
- LANC  jack to connect peripheral equipment such as another VCR which can then be controlled by this VCR.

Compatible colour systems

This VCR is designed to record and play back using the PAL colour system. Recording of video sources based on other colour systems cannot be guaranteed.

The EV-S9000E B can receive PAL colour signals and SECAM signals which are converted to PAL colour signals. Recording and playback are based on the PAL colour system.

Checking your model name

The instructions in this manual are for the EV-S9000E AE, EV-S9000E B, EV-S9000E NP, EV-S9000E UB, and EV-S9000E VC. Check your model number by looking at the rear panel of your VCR. The EV-S9000E NP is the model used for illustration purposes. Any difference in operation is clearly indicated in the text, for example, "EV-S9000E VC only."

Types of differences

Feature	Model	AE	B	NP	VC	UB
Recording/playing NICAM broadcasts		-	-	(B/G NICAM)	-	(I NICAM)
Recording/playing ZWEITON (German stereo) broadcasts	•	-	•	•	•	-
Recording with VPS signals		-	-	-	•	-
Recording Canal+/PAY-TV programmes		-	•	•	•	-

Hi8 (high eight) video system

Both **Hi8** and standard **8** cassette tapes can be used with this VCR. Refer to the charts below for the compatibility between the **Hi8** video system and the standard **8** system.

When playing a tape

This VCR automatically detects the type of tape being played, either **Hi8** or standard **8**. This VCR also automatically detects the tape speed (either SP or LP) the tape was recorded in.

Tape type	Recording format	Playback mode
Hi8 tape	Hi8 (high eight)	Hi8 (high eight)
	8 (standard 8mm)	8 (standard 8mm)
Standard 8 tape	8 (standard 8mm)	8 (standard 8mm)

When recording on a tape

You can set this VCR to record in either **Hi8** or standard **8** format. See "Looking at menu options" on page **48**.

Tape type	Recording format	SET UP MENU setting
Hi8 tape	Hi8 (high eight)	AUTO
	8 (standard 8mm)	OFF
Standard 8 tape	8 (standard 8mm)	AUTO or OFF

Notes

- **Hi8** recording or playback can only be done using a **Hi8** tape.
- You cannot make **Hi8** format recordings on standard **8** tapes.

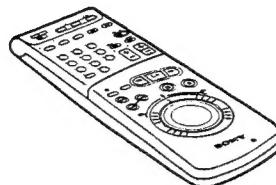
Saving a recording

Slide out the tab on the cassette so that the red colour appears. To re-record on the cassette, slide the tab back.

Step 1 Unpacking

Check that you have the following items:

- Remote commander



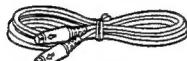
- R6 (size AA) batteries



- Aerial cable



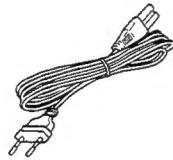
- S video cable



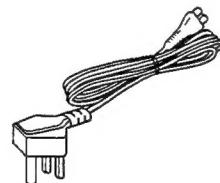
- Audio cable



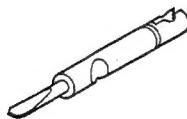
- Mains lead



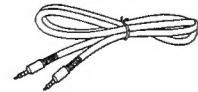
- Mains lead (*EV-S9000E UB only*)



- RF screwdriver



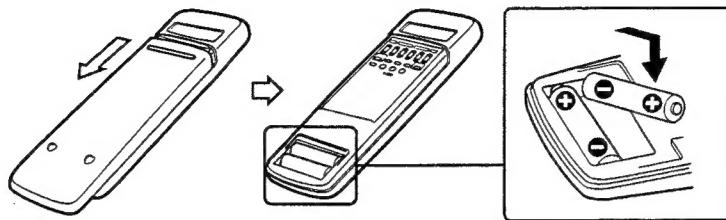
- LANC cable



Step 2

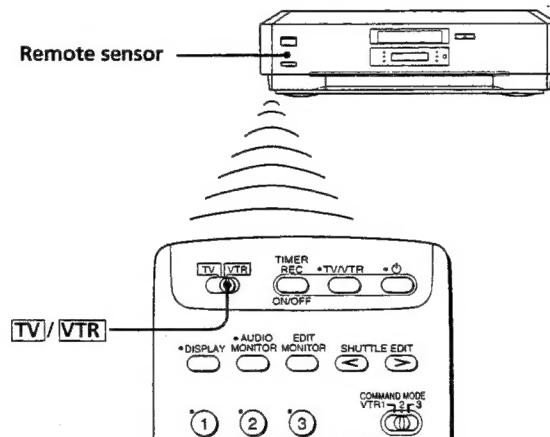
Setting up the remote commander

Insert two R6 (size AA) batteries by matching the + and - on the batteries to the diagram inside the battery compartment.



Using the remote commander

You can use this remote commander to operate this VCR and a Sony TV. Buttons on the remote commander marked with a dot (•) can be used to operate your TV.



To operate	Set TV/VTR to
the VCR	VTR and point at the remote sensor on the VCR
a Sony TV	TV and point at the remote sensor on the TV

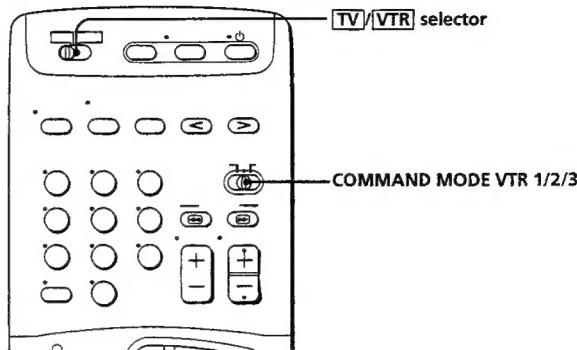
Notes

- With normal use, the batteries should last for approximately three to six months. When battery power gets low, the  symbol appears in the remote commander display.
- If you do not use the remote commander for an extended period of time, remove the batteries to avoid possible damage from battery leakage.
- Do not use a new battery with an old one.
- Do not use different types of batteries.

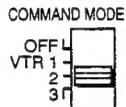
Step 2 Setting up the remote commander (continued)

Setting the command mode

You can select three different positions for the command mode setting.



1



Turn on the VCR, then press OPERATION PANEL OPEN/CLOSE to open the operation panel.

Set the COMMAND MODE VTR OFF/1/2/3 selector on the VCR to "VTR 2."

2



Set the COMMAND MODE VTR 1/2/3 selector on the remote commander to "VTR 2."

3



Set the TV/VTR remote control selector on the remote commander to "VTR."

Note

If you set the COMMAND MODE VTR OFF/1/2/3 selector on the VCR to "OFF," you can no longer control this VCR from any other Sony remote commanders.

Controlling other Sony video equipment if other Sony video equipment has a COMMAND MODE selector

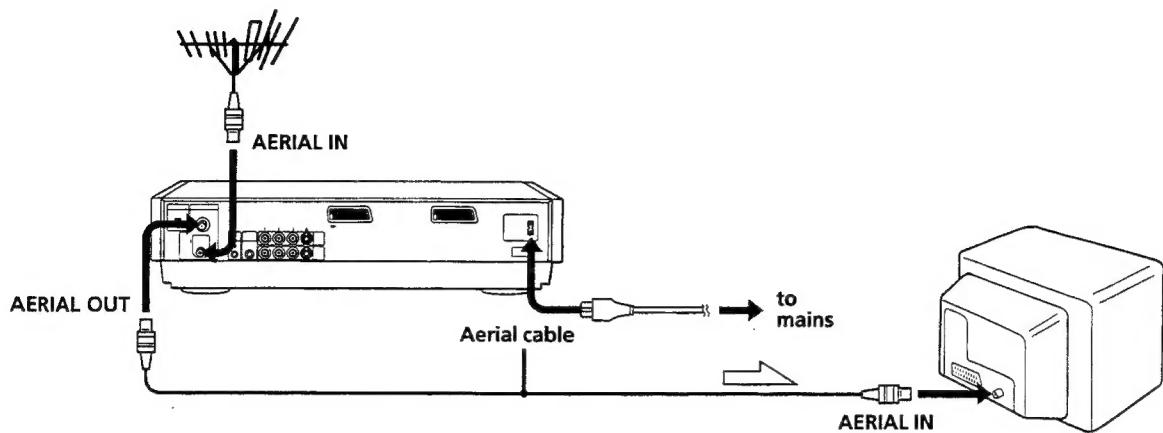
- 1 Set the COMMAND MODE 1/2/3 selector on the remote commander to a position other than the one you selected for this VCR.
- 2 Set the COMMAND MODE selector of any other video equipment to the same position you selected in step 1.

If other Sony video equipment does not have a COMMAND MODE selector

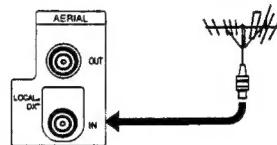
You can control other Sony video equipment using the following COMMAND MODE settings.

- 1) Infrared remote controlled Sony Betamax VCRs: position 1 (Some units may not be controlled in this mode.)
- 2) Sony 8 mm format VCRs: position 2
- 3) Sony VHS format VCRs: position 3

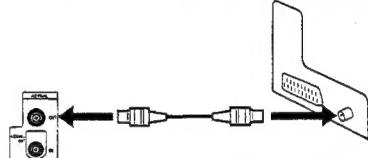
Step 3 Connecting the VCR



- 1 Disconnect the aerial input cable from your TV and connect it to AERIAL IN of the VCR.

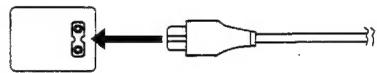


- 2 Connect AERIAL OUT of the VCR and the aerial input of your TV using the supplied aerial cable.



- 3 Connect AC IN of the VCR and the mains supply using the mains lead.

You've completed the basic hookup to watch and record TV programmes.

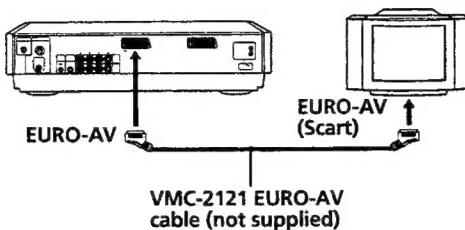


Step 3 Connecting the VCR (continued)

Additional connections

To a TV that has a EURO-AV (Scart) connector

This additional connection can improve picture and sound quality.



When you play a tape, the picture appears on the screen automatically. (See page 23.)

To a TV that has an S-EURO-AV (Scart) connector

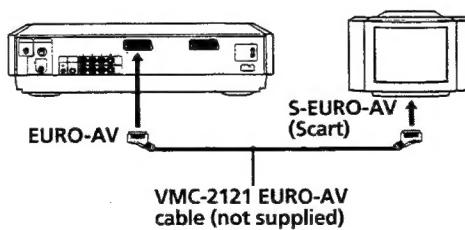
This additional connection can improve picture and sound quality.

Connect your VCR to the TV as shown above, and set EURO AV OUT in the SET UP MENU to S.

- 1) Press MENU.
- 2) Press CURSOR ▲/▼ to select SET UP MENU, then press EXECUTE.
- 3) Press CURSOR ▲/▼ to select EURO AV OUT and set to S.

To a TV that has an S-VIDEO connector

This additional connection can improve picture and sound quality.



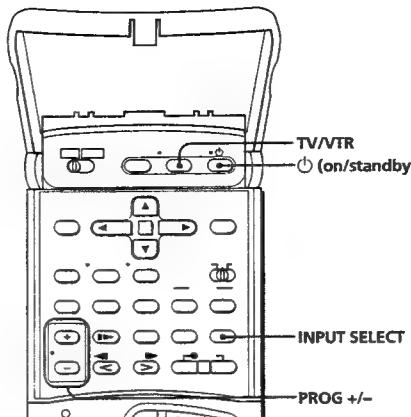
Notes

- If you use the EURO-AV hookup and want to use S-VIDEO input, the playback picture on the TV will be in black and white. In this case, set the TV to S-VIDEO input, or set the EURO AV OUT to NORM in the SET UP MENU.
- If your TV has an S-VIDEO/VIDEO selector switch, set this to the S-VIDEO position to view the picture from the S-VIDEO connector.

Step 4

Tuning the TV to your VCR

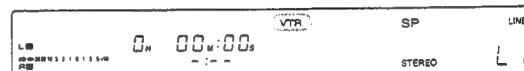
If you have connected the VCR to your TV using the EURO-AV, S, or AV cable, skip this step.

**1**

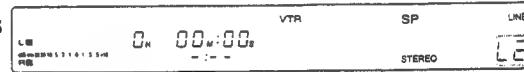
Press \odot (on/standby) to turn on the VCR.

2

Press TV/VTR to light "VTR" in the operation panel display window.

**3**

Press INPUT SELECT until "L2" appears in the display window.

**4**

Turn on your TV and select a programme position for video playback.

For the EV-S9000E B only, make sure that the B/G settings match those on the TV, or no picture appears.

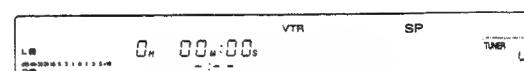
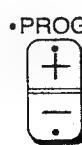
5

Tune the TV between UHF channels 30 and 39 so that a blue screen appears on the TV screen.

Refer to your TV manual for tuning instructions.

6

Press INPUT SELECT until a programme number lights instead.

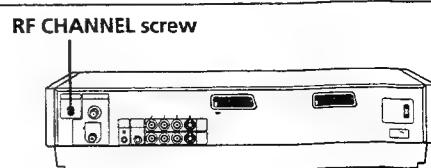
**7**

Press PROG +/- to check to see if the TV screen changes to a different programme.

You have now tuned your TV to the VCR. Whenever you play a tape, set the TV to the programme position selected in step 4 above.

To obtain a clear blue screen

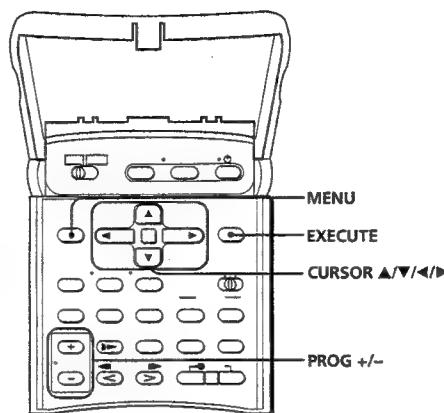
The blue screen may not appear clearly in step 5 above. In this case, turn the RF CHANNEL screw at the rear of the VCR with the supplied RF screwdriver, to a position where the TV clearly displays a blue screen.



Step 5

Tuning the VCR to TV channels (EV-S9000E AE/UB only)

Now you can set your VCR to receive broadcast channels using the on-screen display. Tuning instructions for the *EV-S9000E NP/VC only* and the *EV-S9000E B only* are on pages **14** and **16**, respectively.



1



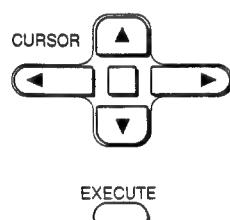
Lift the cover of the remote commander and press MENU.

The following menu appears on the TV screen.

MENU
►SET UP MENU
TUNER PRESET
PICTURE ADJUST
TRAKING ADJUST

PRESS [EXECUTE]

2

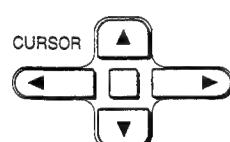


Press CURSOR ▲/▼ to move the cursor (►) to TUNER PRESET, then press EXECUTE.

TUNER PRESET PROG1
NORMAL/CATV •NORM CATV
►CHANNEL SET 1
AFT •ON OFF
FINE TUNING

PRESS [◀ ▶]

3



Press CURSOR ▲/▼ to move the cursor (►) to NORMAL/CATV, then select NORM.

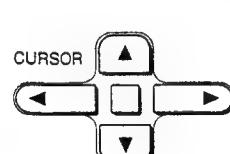
To preset cable TV channels, select CATV.

If you are using the EV-S9000E UB, skip this step.

TUNER PRESET PROG1
►NORMAL/CATV •NORM CATV
CHANNEL SET 1
AFT •ON OFF
FINE TUNING

PRESS [◀ ▶]

4



Press CURSOR ▲/▼ to move the cursor (►) to CHANNEL SET.

TUNER PRESET PROG1
NORMAL/CATV •NORM CATV
►CHANNEL SET 1
AFT •ON OFF
FINE TUNING

PRESS [◀ ▶]

5

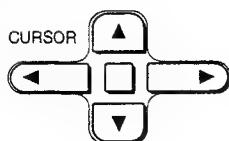


Press PROG +/- to select the programme position.

TUNER PRESET PROG2
NORMAL/CATV •NORM CATV
CHANNEL SET 1
AFT •ON OFF
FINE TUNING

PRESS [◀ ▶]

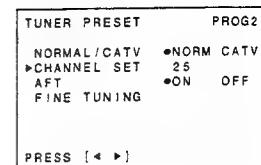
6



Press CURSOR ▶ to start tuning.

The VCR starts searching for a channel and displays the first one it finds on the TV screen. Press CURSOR ◀/▶ repeatedly until the channel you want is displayed. The channels are scanned in the following order:

EV-S9000E UB
UHF B21 – B69
EV-S9000E AE
VHF E2 – E12
A – H (*Italian model only*)
UHF E21 – E69
CATV S1 – S20
HYPER S21 – S41
CATV S01 – S03



If you know the number of the channel you want, press the number buttons. For example, for channel 5, first press "0" and then press "5."

7

To allocate another channel to another programme position, repeat steps 5 and 6.

8

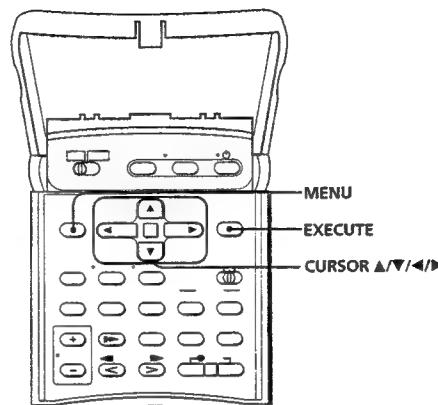


Press EXECUTE to store all the allocated channels.

Step 5

Tuning the VCR to TV channels (EV-S9000E NP/VC only)

Now you can set your VCR to receive broadcast channels using the on-screen display. Tuning instructions for the EV-S9000E AE/UB and the EV-S9000E B are on pages 12 and 16, respectively.

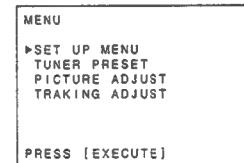


1

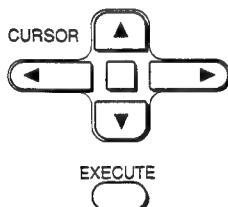


Lift the cover of the remote commander and press MENU.

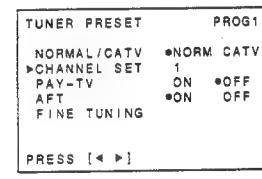
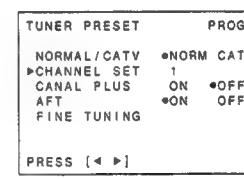
The following menu appears on the TV screen.



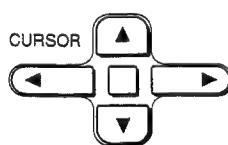
2



Press CURSOR ▲/▼ to move the cursor (►) to TUNER PRESET, then press EXECUTE.

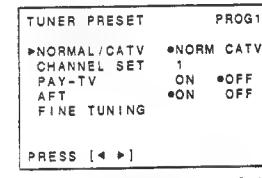
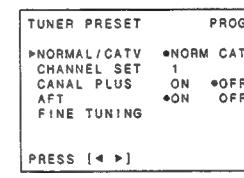


3

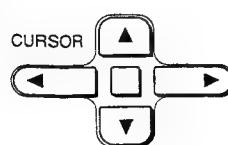


Press CURSOR ▲/▼ to move the cursor (►) to NORMAL/CATV, then select NORM.

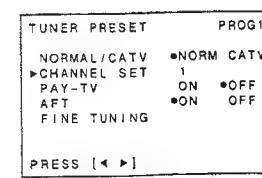
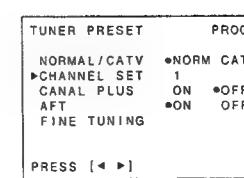
To preset cable TV channels, select CATV.

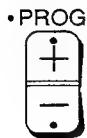


4



Press CURSOR ▲/▼ to move the cursor (►) to CHANNEL SET.



5

Press PROG +/- to select the programme position.

TUNER PRESET	PROG2
NORMAL/CATV	•NORM CATV
CHANNEL SET	1
CANAL PLUS	ON •OFF
AFT	•ON OFF
FINE TUNING	

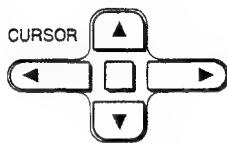
PRESS [◀ ▶]

(EV-S9000E NP only)

TUNER PRESET	PROG2
NORMAL/CATV	•NORM CATV
CHANNEL SET	1
PAY-TV	ON •OFF
AFT	•ON OFF
FINE TUNING	

PRESS [◀ ▶]

(EV-S9000E VC only)

6

Press CURSOR ▶ to start tuning.

The VCR starts searching for a channel and displays the first one it finds on the TV screen. Press CURSOR ◀/▶ repeatedly until the channel you want is displayed. The channels are scanned in the following order:

VHF E2 – E12

A – H (*Italian model only*)

UHF E21 – E69

CATV S1 – S20

HYPER S21 – S41

CATV S01 – S03

TUNER PRESET	PROG2
NORMAL/CATV	•NORM CATV
►CHANNEL SET	25
CANAL PLUS	ON •OFF
AFT	•ON OFF
FINE TUNING	

PRESS [◀ ▶]

(EV-S9000E NP only)

TUNER PRESET	PROG2
NORMAL/CATV	•NORM CATV
►CHANNEL SET	25
PAY-TV	ON •OFF
AFT	•ON OFF
FINE TUNING	

PRESS [◀ ▶]

(EV-S9000E VC only)

If you know the number of the channel you want, press the number buttons. For example, for channel 5, first press "0" and then press "5."

For PAY-TV/Canal Plus channel settings, see page **20** for details.

7

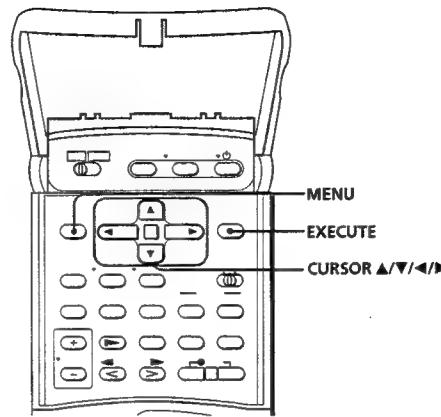
To allocate another channel to another programme position, repeat steps 5 and 6.

8

Press EXECUTE to store all the allocated channels.

Step 5 Tuning the VCR to TV channels (EV-S9000E B only)

Now you can set your VCR to receive broadcast channels using the on-screen display. Tuning instructions for the EV-S9000E AE/UB and the EV-S9000E NP/VC are on pages 12 and 14, respectively.

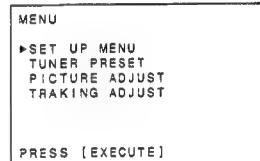


1

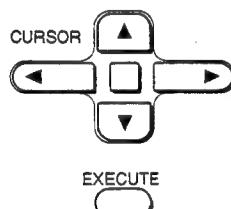


Lift the cover of the remote commander and press MENU.

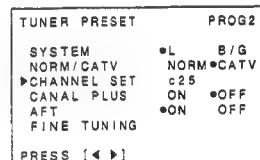
The following menu appears on the TV screen.



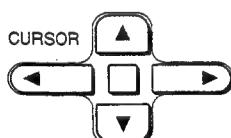
2



Press CURSOR ▲▼ to move the cursor (►) to TUNER PRESET, then press EXECUTE.

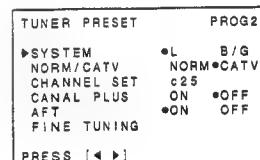


3

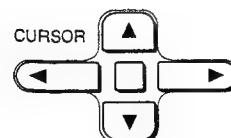


Press CURSOR ▲▼ to move the cursor (►) to SYSTEM, then press CURSOR ◀▶ to select either L or B/G.

- To tune in French broadcasts, set to L.
- To tune in to PAL system broadcasts (for example, German or Swiss broadcasts), set to B/G.

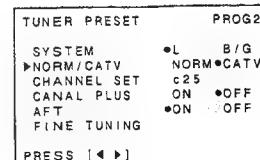


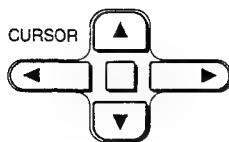
4



Press CURSOR ▲▼ to move the cursor (►) to NORMAL/CATV, then press CURSOR ◀▶ to select either NORM or CATV.

- To tune in VHF or UHF channels, set to NORMAL.
- To tune in CATV or HYPER channels, set to CATV.



5

Press CURSOR ▲/▼ to move the cursor (►) to CHANNEL SET.

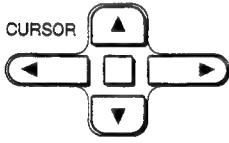
TUNER PRESET		PROG2
SYSTEM	•L	B/G
NORM/CATV	NORM	CATV
►CHANNEL SET	c25	
CANAL PLUS	ON	OFF
AFT	•ON	OFF
FINE TUNING	ON	OFF
PRESS [◀▶]		

6

Press PROG +/- to select the programme position.

If you know the number of the channel you want, press the number buttons. For example, for channel 5, first press "0" and then press "5."

TUNER PRESET		PROGS
SYSTEM	•L	B/G
NORM/CATV	NORM	CATV
►CHANNEL SET	c25	
CANAL PLUS	ON	OFF
AFT	•ON	OFF
FINE TUNING	ON	OFF
PRESS [◀▶]		

7

Press CURSOR ► to start tuning.

The VCR starts searching for a channel and displays the first one it finds on the TV screen. Press CURSOR ◀/► repeatedly until the channel you want is displayed. The channels are scanned in the following order.

TUNER PRESET		PROGS
SYSTEM	•L	B/G
NORM/CATV	NORM	CATV
►CHANNEL SET	c30	
CANAL PLUS	ON	OFF
AFT	•ON	OFF
FINE TUNING	ON	OFF
PRESS [◀▶]		

Channel coverage	Standard L	Standard B/G
VHF	F2 – F10	E2 – E12
(A – H Italian model only)		
UHF	F21 – F69	E21 – E69
CATV	B – Q	S01 – S03, S1 – S20
HYPER	S21 – S41	S21 – S41

For Canal Plus channel settings, see page 20 for details.

8

To allocate another channel to another programme position, repeat steps 5 and 6.

9

Press EXECUTE to store all the allocated channels.

Tuning the VCR to TV channels (EV-S9000E B only) (continued)

Tuning in French cable TV channels

This VCR scans CATV (cable TV) channels from B to Q, and HYPER (extremely high frequency) channels from S21 to S41. In the TUNER PRESET menu, these channels are shown by their corresponding guide channel numbers, which run from 1 to 44. For example, channel B has guide channel number 1, whereas channel Q is indicated as number 23. (See the chart below.)

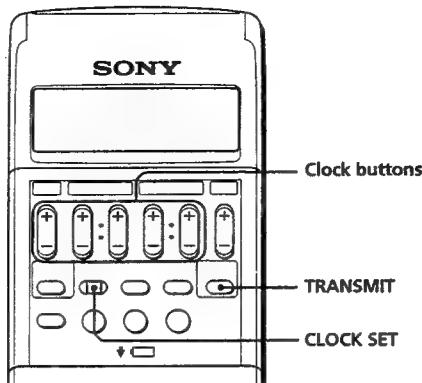
If a channel that you want to tune in is listed only by its frequency (e.g., 152.75 MHz), refer to the chart below for the corresponding guide channel number.

French cable TV channel chart

Channel	Guide channel number	Frequency range (MHz)
B	1	116.75 – 124.75
C	2	124.75 – 132.75
D	3	132.75 – 140.75
D	4	140.75 – 148.75
E	5	148.75 – 156.75
F	6	156.75 – 164.75
F	7	164.75 – 172.75
G	8	172.75 – 180.75
H	9	180.75 – 188.75
H	10	188.75 – 196.75
I	11	196.75 – 204.75
J	12	204.75 – 212.75
J	13	212.75 – 220.75
K	14	220.75 – 228.75
L	15	228.75 – 236.75
L	16	236.75 – 244.75
M	17	244.75 – 252.75
N	18	252.75 – 260.75
N	19	260.75 – 268.75
O	20	268.75 – 276.75
P	21	276.75 – 284.75
P	22	284.75 – 292.75
Q	23	292.75 – 300.75
S21	24	299.25 – 307.25
S22	25	307.25 – 315.25
S23	26	315.25 – 323.25
S24	27	323.25 – 331.25
S25	28	331.25 – 339.25
S26	29	339.25 – 347.25
S27	30	347.25 – 355.25
S28	31	355.25 – 363.25
S29	32	363.25 – 371.25
S30	33	371.25 – 379.25
S31	34	379.25 – 387.25
S32	35	387.25 – 395.25
S33	36	395.25 – 403.25
S34	37	403.25 – 411.25
S35	38	411.25 – 419.25
S36	39	419.25 – 427.25
S37	40	427.25 – 435.25
S38	41	435.25 – 443.25
S39	42	443.25 – 451.25
S40	43	451.25 – 459.25
S41	44	459.25 – 467.25

Step 6 Setting the clock

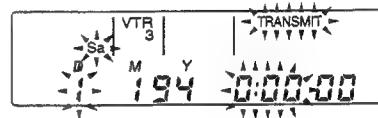
You must set the time and date on the remote commander to be able to use the timer recording features properly.



1



Slide down the back cover of the remote commander and press CLOCK SET.



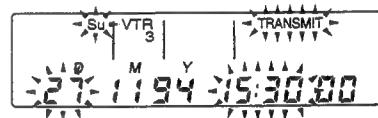
2



Press the clock buttons until the current time and date appear.

To set the current time and date, press D +/- for the date, month, and year, STOP H +/- for the hour, and STOP M +/- for the minutes. You can make the settings in any order.

To cycle backwards, press the minus (-) side of the buttons. The day of the week is set automatically.

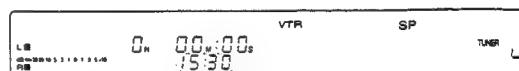


3



Point the remote commander at the VCR and press TRANSMIT.

A beep sounds and the correct time appears in the VCR's display window.

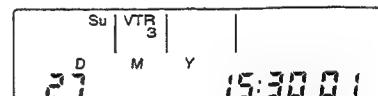


4



Press CLOCK SET.

The remote commander LCD displays the time and date.

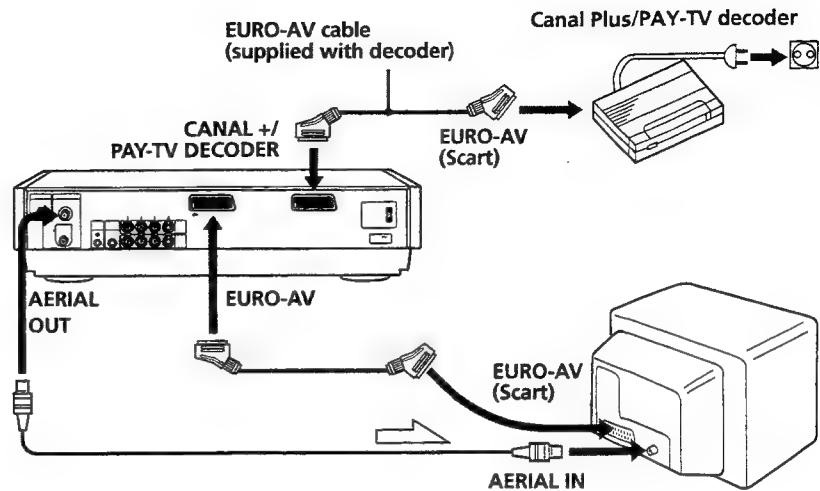


Setting the Canal Plus/ PAY-TV decoder

(EV-S9000E B/NP/VC only)

You can watch or record Canal Plus or PAY-TV programmes if you connect a decoder (not supplied) to the VCR.

How to hook up



Notes

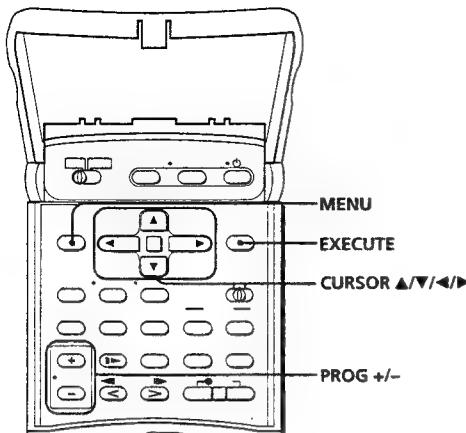
- If you do not use 21-pin EURO-AV cables for the decoder-VCR and TV-VCR connections, you cannot watch Canal Plus or PAY-TV programmes received via the TV.
- You cannot record superimposed subtitles with either of these hookups.
- Whether subtitles are displayed or not depends on the hookup.
- If you've connected your VCR to the TV with an S-EURO-AV connector and the TV screen shows a black-and-white picture, make the TV-VCR connection using a EURO-AV cable and the supplied S-video and audio cables. To watch the playback picture, set the line input to that of the S-video and audio cables.

If your TV has a EURO-AV connector

Set the EURO AV OUT menu option to NORM. This hookup allows you to display subtitles, but the VCR does not transmit Y/C signals.

If your TV has a EURO-AV connector and is S-VIDEO compatible

Set the EURO AV OUT menu option to S. This hookup does not allow you to display subtitles, and some TVs may only display a black-and-white screen. If this is the case, set the TV to S-VIDEO input.

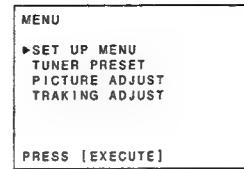
**Note**

- The on-screen information varies among different models.

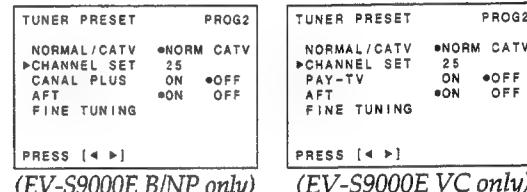
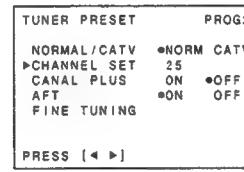
Presetting Canal Plus/PAY-TV channels

To watch or record Canal Plus/PAY-TV programmes, set your VCR to receive the channels using the on-screen display.

- 1 Turn on your decoder.
 - 2 Lift the cover of the remote commander and press MENU.
- The following menu appears on the TV screen.

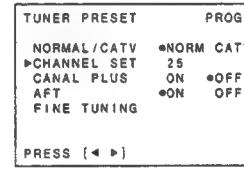


- 3 Press CURSOR ▲/▼ to move the cursor (►) to TUNER PRESET, then press EXECUTE.

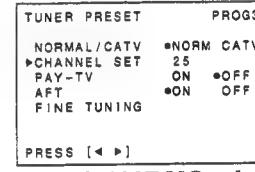


(EV-S9000E B/NP only) (EV-S9000E VC only)

- 4 Press the PROG +/− buttons to select the desired programme position.

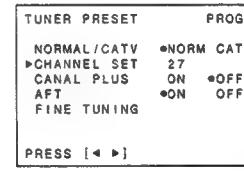


(EV-S9000E B/NP only)

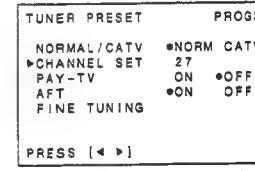


(EV-S9000E VC only)

- 5 Press CURSOR ▲/▼ to move the cursor (►) to CHANNEL SET, then tune in the Canal Plus or PAY-TV channels.

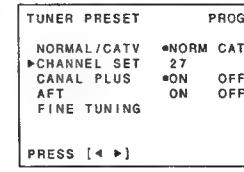


(EV-S9000E B/NP only)

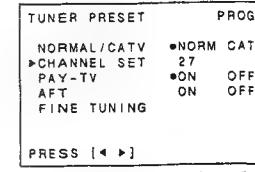


(EV-S9000E VC only)

- 6 Press CURSOR ▲/▼/◀/▶ to move the cursor (►) to CANAL PLUS (for the EV-S9000E B/NP only) or PAY-TV (for the EV-S9000E VC only) and set to ON, then press EXECUTE.

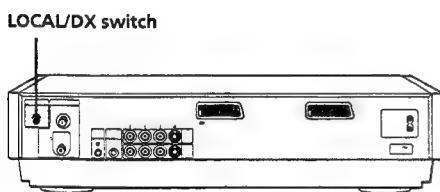
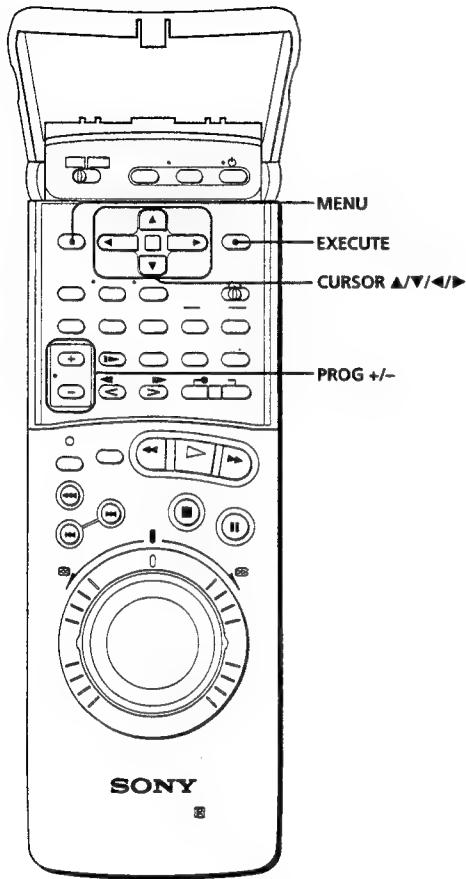


(EV-S9000E B/NP only)



(EV-S9000E VC only)

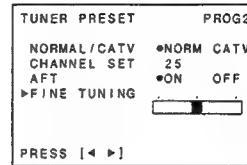
Additional tuning instructions



If the picture is not clear

Normally, the Auto Fine Tuning (AFT) function automatically tunes in channels clearly. If, however, the picture is not clear, you may also use the manual tuning function.

- 1 Press PROG +/- to select the programme number for which you cannot obtain a clear picture.
- 2 Press MENU, then select TUNER PRESET and press EXECUTE.
- 3 Select FINE TUNING. The fine tuning meter appears.



- 4 Press CURSOR ◀/▶ to get a clearer picture, then press EXECUTE. Note that the AFT (Auto Fine Tuning) setting switches to OFF.

If the TV signal is too strong

Set the LOCAL/DX switch on the rear of the VCR to LOCAL.

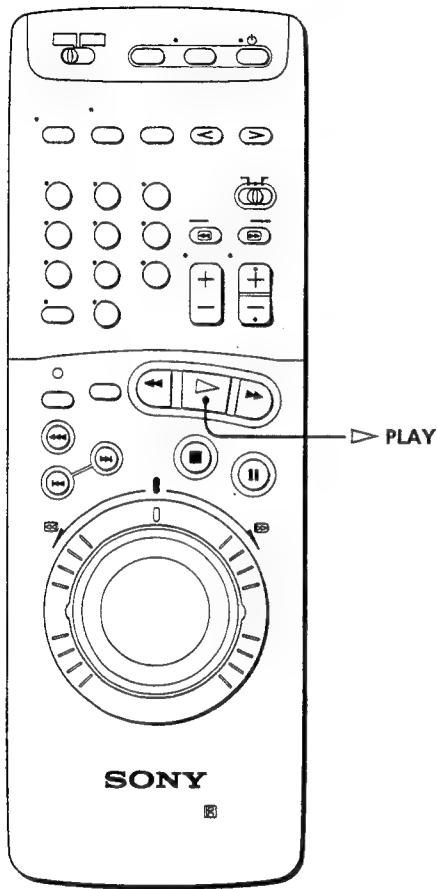
Disabling unwanted programme positions

After tuning the TV channels, you can disable unused programme positions. Positions that are disabled will be skipped later when you press the PROG +/- buttons.

- 1 Press MENU, then select TUNER PRESET and press EXECUTE.
- 2 Press PROG +/- until the programme position you want to disable appears beside "PROG" on the TV screen.
- 3 Press number button "0" twice to display the number "0" beside CHANNEL SET.
- 4 Repeat steps 2 and 3 for other positions you want to disable.
- 5 Press EXECUTE.

Basic Operations

Playing a tape



This section shows you how to play back a video tape.

1 Turn on your TV and tune in to the VCR:

- If the TV is connected to the VCR using the EURO-AV cable, the S cable, or AV cable, set the TV to video input.
- If the TV is connected to the VCR using only the aerial cable, set the TV to the programme position for the VCR.

2 Insert a tape.

The VCR turns on automatically.

3 Press ▷ PLAY to start playing.

When the tape reaches the end, the VCR automatically rewinds it to the beginning. (The power remains on.)

Additional tasks

To	Press
Stop play	■ STOP
Pause play	■ PAUSE
Resume play after pause	■ PAUSE or ▷ PLAY
Search forward	Press the JOG/SHUTTLE button, then turn the JOG dial/SHUTTLE ring to ▶ during playback
Search backward	Press the JOG/SHUTTLE button, then turn the JOG dial/SHUTTLE ring to ▶ during playback
Fast-forward the tape	►► FF during stop
Rewind the tape	◀◀ REW during stop
Rewind the tape at high speed	◀◀ HI-SPEED REW

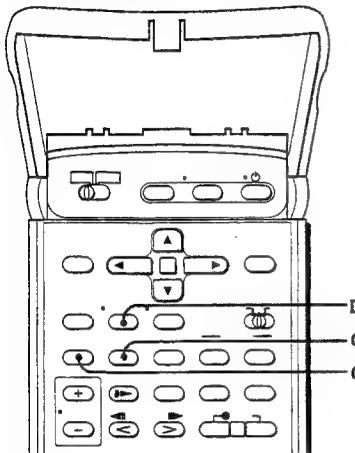
Tip

- For further information on searching and playback functions, see "Playing/searching at various speeds" on page 38.

Playing a tape (continued)

Notes

- When a tape is reinserted, the counter returns to "0H00M00S."
- The counter will not work on tape portions with no recording.

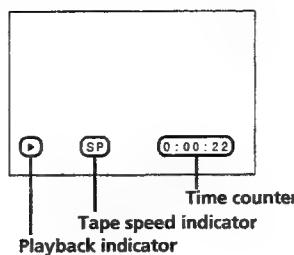


Notes

- The time counter does not advance during playback of an unrecorded tape segment.
- The remaining tape length is displayed a short moment after you insert a tape and press ▶ PLAY. "-H-M" appears in the display window if the VCR cannot detect the remaining tape length.
- The remaining tape length counter halts during pause, stop, slow motion and frame-by-frame playback. The counter advances and displays correct information when you return to normal playback or press X2.
- The remaining tape length may not be displayed correctly when using the following types of tapes:
 - pre-recorded commercial tapes
 - tapes that are not reeled properly at the beginning
 - tapes that contain unrecorded segments or portions recorded with different tape speeds
 - poor-quality or non-standard tapes
 - cleaning cassettes
- The remaining tape length counter is intended for rough time measurement only.

Displaying the remaining tape length and time counter

Press DISPLAY to turn the display on or off.



Using the time counter

At the point on a tape that you want to find later, press COUNTER RESET to reset the counter to "0H00M00S." When you rewind or advance the tape to this point, refer to the counter.

Checking the remaining tape length

To check the remaining tape length, press COUNTER SELECT twice in succession during recording or playback. At the first press, the TIME CODE indicator lights up in the display window. At the second press, the REMAIN indicator lights up and the remaining tape length is displayed. To display the time counter, press COUNTER SELECT again.

Displaying the DATA CODE

Set DATA CODE to ON in the SET UP MENU to display the counter in the display window. When you play back tapes that have been recorded with DATA CODE signals, the date, month, and year of the recording are displayed on the TV screen.

Selecting the audio recording pattern

Select the desired track to play back by setting the AUDIO MONITOR switch on the VCR.

To listen to	Set the AUDIO MONITOR switch to
Digital stereo signals recorded on the PCM track	PCM
Mixed sound of the PCM track and the standard track	MIX
Hi-fi stereo sound recorded on the standard track	STD (Hi-Fi)
Additionally dubbed sound	PCM
Additionally dubbed sound and the original sound on the standard track	MIX

Notes

- Normally set the AUDIO MONITOR switch to PCM to enjoy high-quality playback sound.
- The additionally dubbed sound can't be heard if the AUDIO MONITOR switch is set to STD (Hi-Fi).

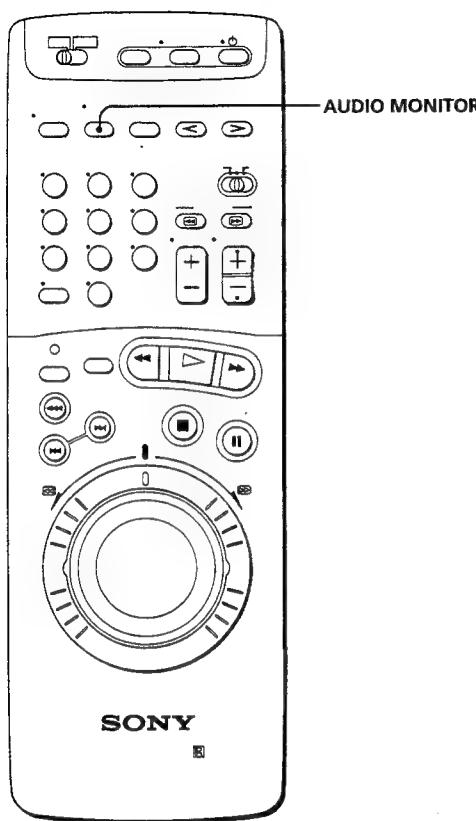
If the sound is not heard or is heard only intermittently

When a tape which has been recorded on a video camera recorder or a video cassette recorder without the PCM function is played on this unit, set the AUDIO MONITOR setting to STD. The PCM indicator may blink, but it will not affect the sound.

When the TV/VCR connection is made to a TV without audio/video inputs

To monitor the playback sound in stereo, connect the VCR to a stereo system.

Playing a tape (continued)



Selecting playback sound of stereo/bilingual tapes

Press AUDIO MONITOR on the remote commander to select the desired sound. Each press of the button changes the display on the VCR and TV screen.

Stereo programmes

Press AUDIO MONITOR until

To listen to	The TV screen shows	The display window shows
Stereo sound	"STEREO"	"STEREO"
Left channel	"L"	"L"
Right channel	"R"	"R"

Bilingual programmes

Press AUDIO MONITOR until

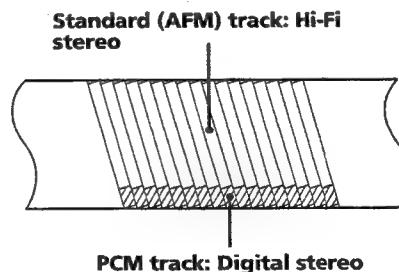
To listen to	The TV screen shows	The display window shows
Main sound	"MAIN"	"MAIN"
Sub sound	"SUB"	"SUB"
Main and sub sounds	"MAIN/SUB"	"MAIN SUB"

Notes

- When you play a tape recorded in monaural, the sound is heard in monaural regardless of the AUDIO MONITOR setting.
- To play a tape in stereo, you must use the EURO-AV connection or a LINE connection.

How sound is recorded on a video tape

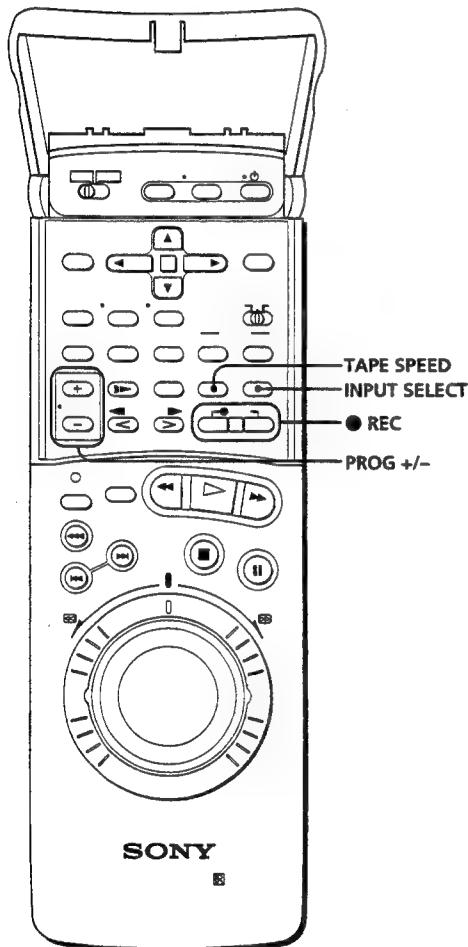
This VCR records sound onto two different tracks. High-fidelity sound (usually stereo) is recorded onto the standard (AFM) track along with the picture. PCM (digital sound) is recorded onto the PCM track along the edge of the tape.



Recording TV programmes

Note

- If you have connected your TV to your VCR using the EURO-AV cable make sure to set the EURO AV OUT option in the SET UP MENU to NORM. However, if your TV has a S input setting, then set the EURO AV OUT option in the SET UP MENU to S.



This section shows you how to record TV programmes in the most basic way: manual recording. With manual recording, you start the VCR recording when the programme begins, then stop it when the programme ends. The VCR also provides the following ways of recording:

- Manually start recording, then stop it automatically—"Recording using the quick timer" (page 28)
- Automatically start and stop recording—"Recording TV programmes using the timer" (page 32)

1 Turn on your TV and tune in to the VCR:

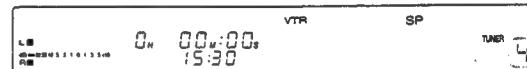
- If the TV is connected to the VCR using the EURO-AV cable, S cable, or AV cable, set the TV to video input.
- If the TV is connected to the VCR using only the aerial cable, set the TV to the programme position for the VCR.

When using a decoder, turn it on and set the VCR to the programme position you want to record.

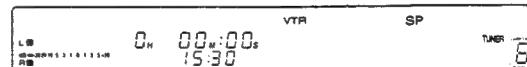
2 On the operation panel, set the PCM REC LEVEL control to "5" and the PCM REC BALANCE control to the centre.

3 Insert a tape with the safety tab slid back so that the red portion does not show.

4 Press INPUT SELECT until a programme position appears in the VCR's display window.

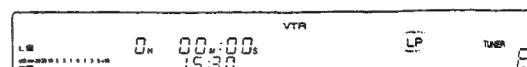


5 Select the desired programme position by pressing PROG +/-.



6 Select the tape speed, SP (standard play) or LP (long play), by pressing TAPE SPEED.

See "To select tape speeds" on the next page.



7 Start recording by pressing REC.

When the tape reaches the end, the VCR automatically rewinds it to the beginning.

Tip

- To select programme positions, you can also use the number buttons on the remote commander. For two-digit numbers, press the -/- (ten's digit) button followed by the number buttons.

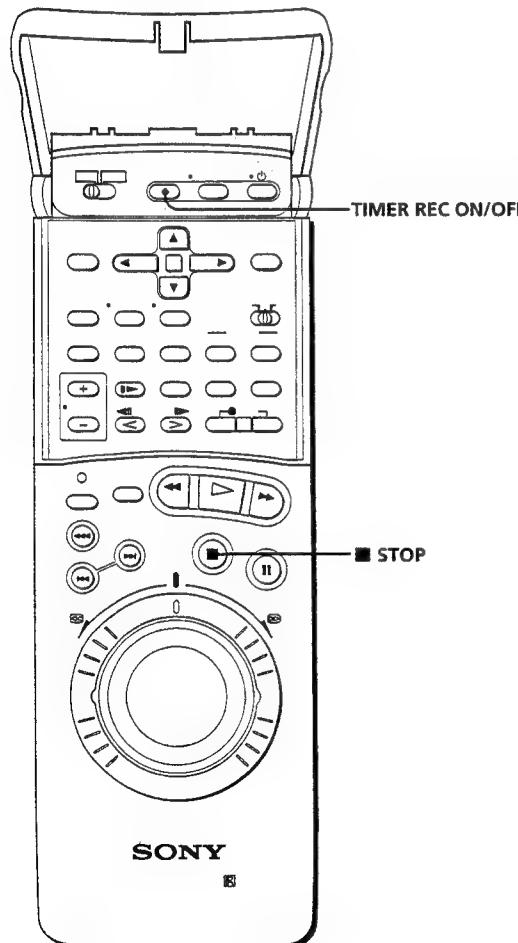
Recording TV programmes (continued)

Note

- If you insert a cassette with its safety tab slid to show the red portion, the VCR ejects it when you press **REC**.

Tips

- To cut out an unwanted scene while recording, press **PAUSE**, turn the JOG dial/**SHUTTLE** ring on the VCR to rewind the tape to the beginning of the unwanted scene, then press **PAUSE** to resume recording.
- The display appears on the TV screen indicating information about the tape, but the information will not be recorded on the tape.
- If you don't want to watch TV while recording, you can turn off the TV. When using a decoder, make sure to leave it on.



To stop recording

Press **STOP**.

To select tape speeds

When recording, select either SP or LP. LP provides recording time twice as long as SP. However, SP provides better picture quality. You can mix SP and LP on the same tape. When playing back, the VCR automatically detects the tape speed. See the table below for the maximum recording/playback time in each speed.

Tape type	Maximum recording/playback time	
	SP	LP
E5/P5-30	30 min.	1 hr.
E5/P5-60	1 hr.	2 hrs.
E5/P5-90	1 hr. 30 min.	3 hrs.
E5-120	2 hrs.	4 hrs.

If you use other types of tapes than those listed above, the remaining tape length may not be displayed correctly.

Recording using the quick timer

The quick timer enables you to record for a specified period of time in intervals of 30 minutes. Once you specify the recording time, the VCR automatically stops recording. Before you begin, check that the clock is set correctly.

After you start recording, press **QUICK TIMER** on the operation panel until the desired duration appears in the display window. The **TIMER** indicator on the VCR lights up. Each press increases the recording duration in increments of 30 minutes as shown below.

→ 0:00 → 0:30 → 1:00 → 1:30 → 2:00 → 2:30 → 3:00 → 3:30 → 4:00 → 4:30 → 5:00 → 5:30 → 6:00

The recording duration decreases minute by minute to 0:00, then the VCR turns off automatically.

To stop recording

To stop quick-timer recording while the VCR is recording a programme, press **TIMER REC ON/OFF** to turn off the **TIMER** indicator on the VCR.

To extend the recording duration while recording

Press **QUICK TIMER** until the desired duration appears in the display window.

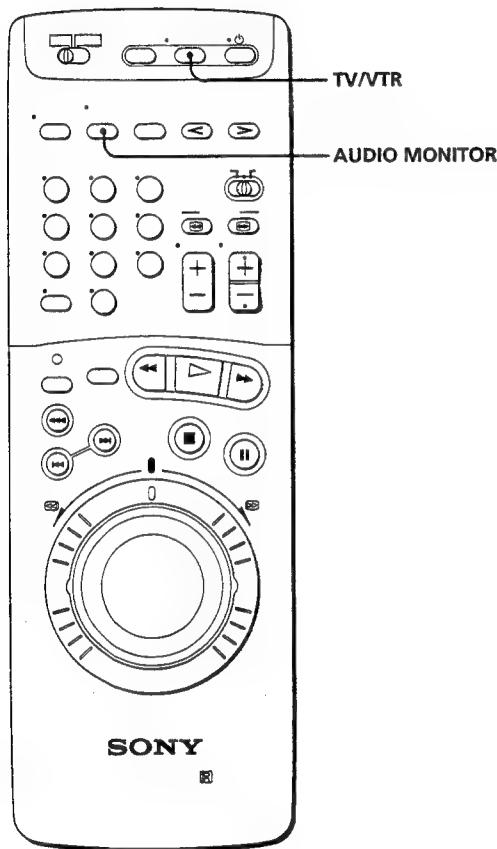
Watching a TV programme while recording another

You can watch a TV programme and record another at the same time.

- 1 Press TV/VTR on the top right of the remote commander to turn off the VTR indicator in the display window.
- 2 Select the desired programme position on the TV.

Note

- To watch Canal Plus or PAY-TV programmes on the TV while recording them, set the TV to video input.



Recording stereo and bilingual programmes: in ZWEITON (German stereo) system (EV-S9000E AE/ NP/VC only)

This VCR automatically receives and records stereo and bilingual programmes based on the ZWEITON system. When stereo programmes are received, the STEREO indicator appears in the display window; when bilingual programmes are received, the MAIN indicator appears in the display window.

To monitor bilingual programmes while recording

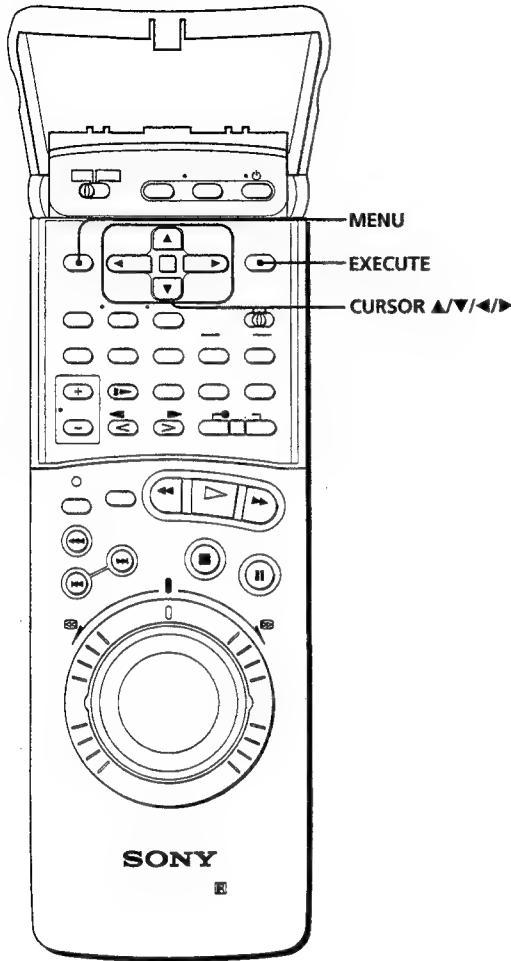
Press AUDIO MONITOR to select the desired sound.

To listen to	Press AUDIO MONITOR until	
	The TV screen shows	The display window shows
Main sound	"MAIN"	"MAIN"
Sub sound	"SUB"	"SUB"
Main and sub sounds	"MAIN/SUB"	"MAIN SUB"

Note

- The AUDIO MONITOR button doesn't work while recording stereo programmes in ZWEITON system.

Recording TV programmes (continued)



Tip

- When you set NICAM to ON, the stereo or bilingual sound is recorded on the PCM track and the standard sound is recorded on the AFM track.

Recording stereo and bilingual programmes: in NICAM system (EV-S9000E NP/UB only)

This VCR receives and records stereo and bilingual programmes based on the NICAM system. When NICAM broadcasts are received, the STEREO indicator appears in the display window; when stereo and bilingual programmes are received, the NICAM indicator lights up in the display window.

1 Press MENU and select SET UP MENU.

SET UP MENU PAGE1	
►LANC MODE	•M S
SHUTTLE MODE	•AUTO A
TBC	•ON OFF
AUDIO LINE IN	•ST BIL
INDEX SEARCH	•NORM DATA
DATA CODE	ON •OFF

PRESS [◀ ▶]

2 Set NICAM to ON by pressing CURSOR ▲/▼/◀/▶.

SET UP MENU PAGE2	
►H18	•AUTO OFF
RF MODULATOR	•ON OFF
L IN 3 VIDEO	•NORM S
EURO AV OUT	•NORM S
NICAM	•ON OFF

PRESS [◀ ▶]

3 Press EXECUTE to store the setting.

Using the NICAM setting, NICAM broadcasts are recorded as in the following table.

Track	Sound recorded	
	Stereo	Bilingual
PCM Left channel	Left channel	Main
PCM Right channel	Right channel	Sub
AFM (HiFi) Left channel	Standard	Standard
AFM (HiFi) Right channel		

To monitor stereo and bilingual programmes while recording

Set NICAM to ON. Use the AUDIO MONITOR switch on the operation panel to select the desired sound.

Stereo programmes

To listen to	Set the AUDIO MONITOR switch to	The TV screen and the display window show
Stereo sound	PCM	"STEREO"
Standard sound	AFM (HiFi)	No indication

Bilingual programmes

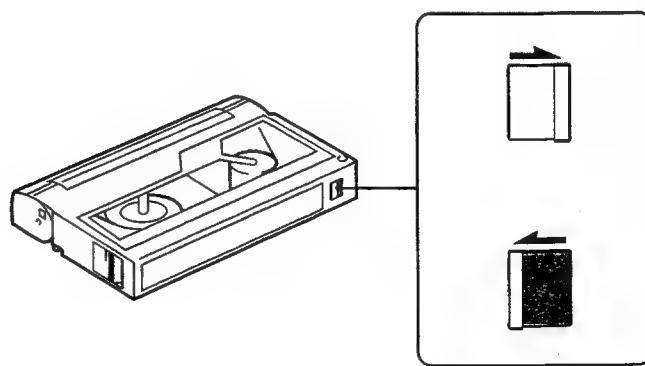
Use the AUDIO MONITOR button on the remote commander to select the desired sound.

To listen to	Set the AUDIO MONITOR switch to	The TV screen and the display window show
Main sound		"MAIN"
Sub sound	PCM	"SUB"
Main and sub sounds		"MAIN/SUB"
Standard sound	AFM (HiFi)	No indication

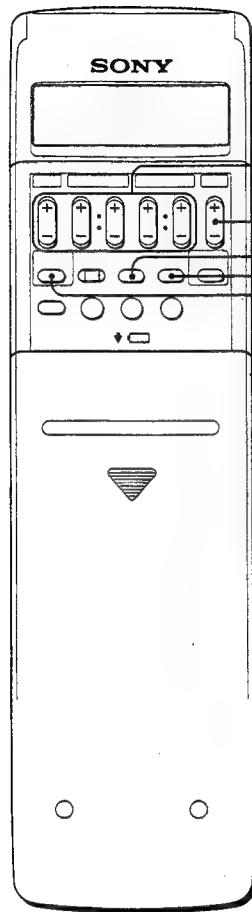
Saving a recording

Video tapes have a safety tab to protect against accidental recording. To prevent accidental erasure of a recording, slide out the tab on the cassette so that the red portion is visible. A tape with its safety tab in this position ejects if you try to record on it.

To re-record on a tape, slide the tab so that the red portion is not visible.



Recording TV programmes using the timer

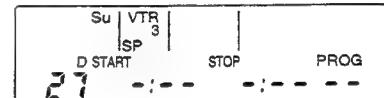


This section shows you how to let the VCR automatically start and stop recording TV programmes. You can preset up to eight programmes within a one month time frame.

Before you start...

- Check that the clock is set correctly.
- Insert a tape with its safety tab in place. Make sure the tape is longer than the total recording time.
- Turn on your TV and tune in to the VCR. When using a decoder, turn it on.

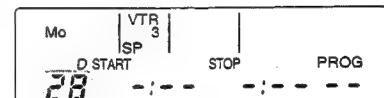
- 1 Slide down the back cover of the remote commander and press TIMER SET.**



- 2 Set the date to start recording by pressing D +/-.**

The day of the week is set automatically.

To record the same programme every day or the same day once a week, see "Daily/weekly recording" on page 35.



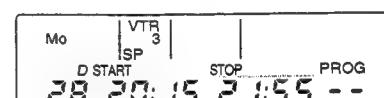
- 3 Set the time to start recording.**

1 Press START H +/- to set the hour when you want to start recording.

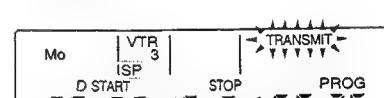
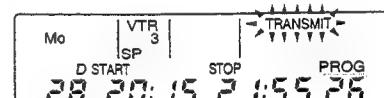
2 Press START M +/- to set the minutes.



- 4 Set the time to stop recording by pressing STOP H +/- and M +/-.**

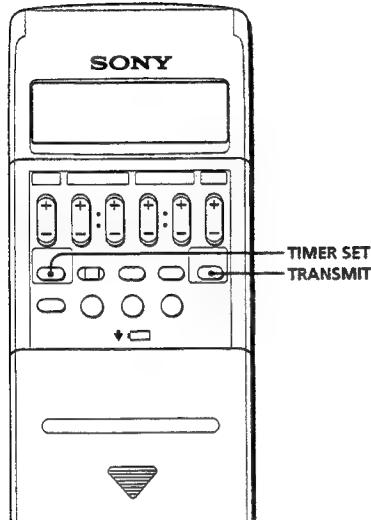


- 5 Select the programme position by pressing PROG +/-.** If you want to record via the LINE IN jacks, press INPUT SELECT. To select the desired tape speed, press TAPE SPEED. See "To select tape speeds" on page 28.

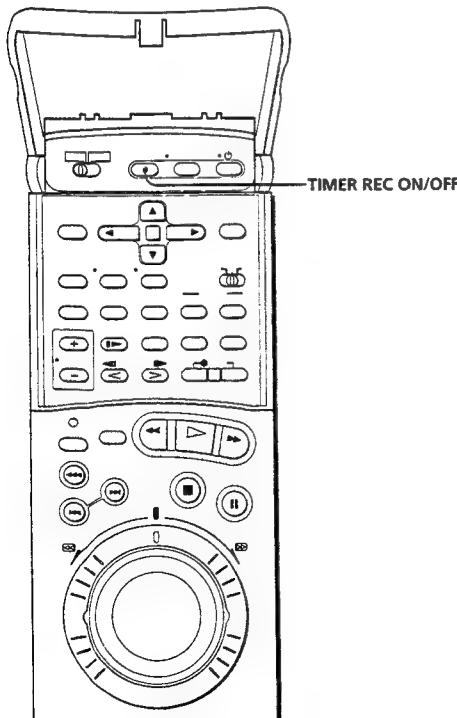


Tip

- To change or correct the setting before transmitting it, press the button for the item you want to change.

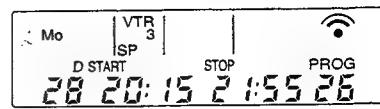
**Note**

- If the power is interrupted for more than one hour while the VCR is standing by for recording, the timer settings are cleared. Reset the timer.



6 Point the remote commander at the VCR and press TRANSMIT to store the setting in the VCR's memory.

A beep sound indicates that the programme has been transmitted to the VCR, and the TIMER indicator on the VCR lights up. The VCR turns off automatically, and enters timer recording standby mode. To preset another timer setting, repeat steps 2 to 6. When using a decoder, leave it on. The VCR automatically turns on and starts recording at the preset start time, and turns off at the preset stop time.



7 Press TIMER SET.

The remote commander displays the time and date.

To stop recording

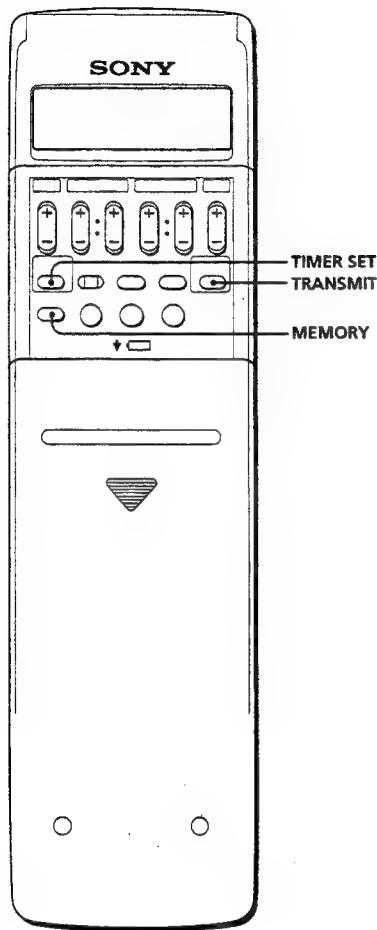
To stop while the VCR is recording a programme, press TIMER REC ON/OFF to turn off the TIMER indicator on the VCR.

To use the VCR while recording

You can do the following tasks during timer recording.

To	Press
Reset the counter to "0H00M00S"	COUNTER RESET
Display tape information on the TV screen	DISPLAY
Check the timer settings	TIMER ON SCREEN
Watch another TV programme	TV/VTR (See "Watching a TV programme while recording another" on page 29.)

Recording TV programmes using the timer (continued)



Storing frequently used settings in the remote commander

The items selected for one timer recording programme are erased from the remote commander display when TIMER SET is pressed. It is cleared from the programme list when recording has finished as per the settings you have made. However, the START/STOP time and programme position of up to four programmes can be stored in the remote commander and be recalled later. This enables you to quickly access the most frequently used settings, especially your favourite weekly programmes. The recording date is automatically shifted to the next week after this week's recording is finished.

- 1 Press TIMER SET, then press MEMORY on the remote commander. The MEMORY **A** indicator lights up in the remote commander display window.
- 2 Enter all of the settings for the programme you wish to record. To do this, repeat steps 1 to 5 under "Recording TV programmes using the timer" on page 32.
- 3 Press MEMORY.
- 4 To enter other programmes, press MEMORY to light the MEMORY **B**, MEMORY **C**, and MEMORY **D** indicator, then repeat steps 2 and 3.
- 5 Press TIMER SET.

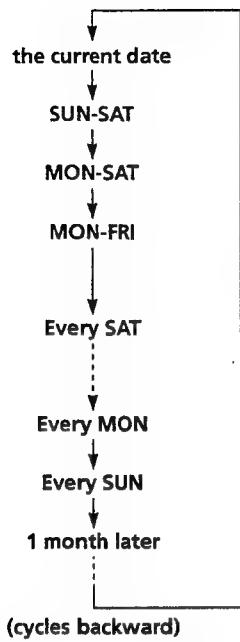
To recall or change memory settings

- 1 Press TIMER SET.
- 2 Press MEMORY to call up the desired indicator **A**, **B**, **C**, or **D**.
- 3 Make whatever changes necessary.
- 4 Press TRANSMIT, then press TIMER SET.
The VCR enters timer recording standby.

Using the VCR before timer recording begins

Press TIMER REC ON/OFF to turn off the TIMER indicator on the VCR, then press \odot (on/standby). The VCR is ready for use.

After using the VCR, press TIMER REC ON/OFF again to turn on the TIMER indicator on the VCR. Remember to reset the VCR to stand by for recording before the time you've set the VCR to start recording, or the timer setting will be cancelled.



Daily/weekly recording

Daily recording records the same programme every day of the week; weekly recording records the same programme on the same day, every week.

When you set the date to start recording in step 2 of "Recording TV programmes using the timer," press D – until the desired day appears. Each time you press the button, the indication changes as shown on the left.

Timer recording with VPS signals (EV-S9000E VC only)

The broadcast system transmits VPS (Video Programme System) signals with its TV programmes. These signals ensure that your timer recordings are made regardless of broadcast delays, early starts or broadcast interruptions. When setting the timer, make sure to enter the start and stop times exactly as indicated in the TV programme guide, otherwise the VPS function will not work.

1 If the TIMER indicator on the VCR is lit, press TIMER REC ON/OFF on the VCR to release the VCR from standby and turn off the indicator.

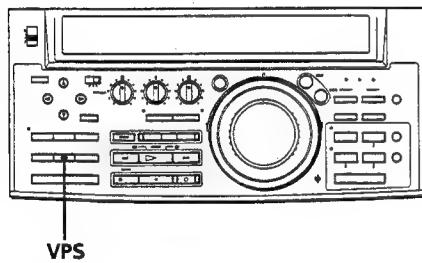
2 Press \odot to turn on the VCR.

3 Press VPS on the VCR.

The VPS indicator lights up in the display window.

4 If you turned off the TIMER indicator in step 1, press TIMER REC ON/OFF on the VCR.

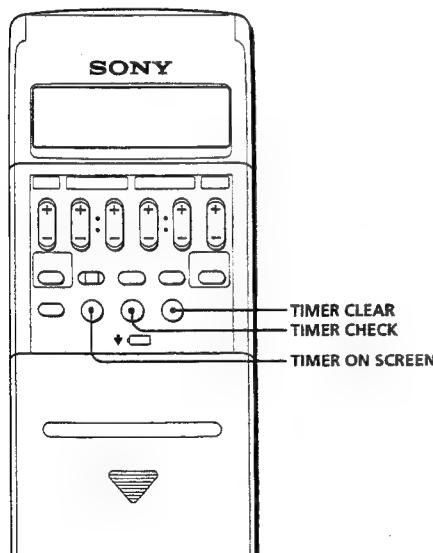
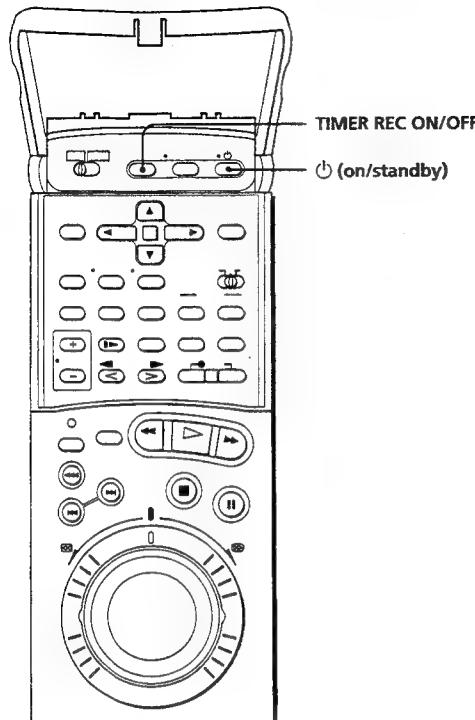
The VCR returns to recording standby. Once you switch on the VPS function, it works on all timer settings that are set to programmes with VPS signals.



Notes

- If recording times overlap due to a VPS timer shift, the programme that was broadcast first has priority. The second programme will begin to record only when the first programme has finished.
- If the VPS signal is too weak or the broadcasting station failed to transmit VPS signals, the VCR will record the programme without using the VPS function even if the VPS indicator is lit in the display window.

Checking/cancelling timer settings



This section shows you how to check and cancel the timer settings after you've stored them in the VCR.

Before you start...

- Turn on your TV and tune in to the VCR.

1 Press TIMER REC ON/OFF to turn off the TIMER indicator on the VCR.

2 Press  (on/standby) to turn on the VCR.

3 Slide down the back cover of the remote commander, and press TIMER CHECK to display the PROGRAM LIST on the TV screen.

PROGRAM LIST VPS 21.12 MON					
DATE	START	STOP	PROG		
►24.4 MON	7:00	8:00	6 SP		
►7.4 FRI	8:30	10:15	50 LP		
MON - SAT	21:00	0:00	L1 LP		
EVERY SUN	9:55	12:30	12 SP		

4 Check the timer settings in the PROGRAM LIST:

- If you do not want to cancel the settings, press TIMER ON SCREEN, then TIMER REC ON/OFF to return to recording standby.
- If you want to cancel the settings, press TIMER CHECK to move the cursor (►) to the setting you want to cancel.

PROGRAM LIST VPS 21.12 MON					
DATE	START	STOP	PROG		
24.4 MON	7:00	8:00	6 SP		
►7.4 FRI	8:30	10:15	50 LP		
MON - SAT	21:00	0:00	L1 LP		
EVERY SUN	9:55	12:30	12 SP		

5 Cancel the timer setting:

To cancel the setting, press TIMER CLEAR, then TIMER ON SCREEN. The VCR returns to the original screen. If there are any other timer settings left in the PROGRAM LIST, press TIMER REC ON/OFF to return to recording standby.

PROGRAM LIST VPS 21.12 MON					
DATE	START	STOP	PROG		
24.4 MON	7:00	8:00	6 SP		
►MON - SAT	21:00	0:00	L1 LP		
EVERY SUN	9:55	12:30	12 SP		

To check the timer settings during timer recording

Press TIMER ON SCREEN to turn the PROGRAM LIST on or off.

When the timer settings overlap

The VCR will not record overlapping programmes. If any of your timer settings overlap, change the settings.

Case 1

Programme 1
(listed first) 10:00 → 10:50

Programme 2
(listed next) → 11:30
Will be cleared

Case 2

Programme 1 10:00 → 10:50
20 seconds
will not be
recorded

Programme 2 → 11:40

Case 3

Programme 1 10:00 → 11:30
Will be cut off

Programme 2 → 12:15
10:45

Case 1: If you preset two programmes to start recording at the same time...

The programme listed first on the PROGRAM LIST has priority over the other programmes. The timer settings of lower priority programmes will be erased from the PROGRAM LIST when the first programme begins recording.

Case 2: If you preset programme 2 to start recording at the same time you preset programme 1 to finish recording...

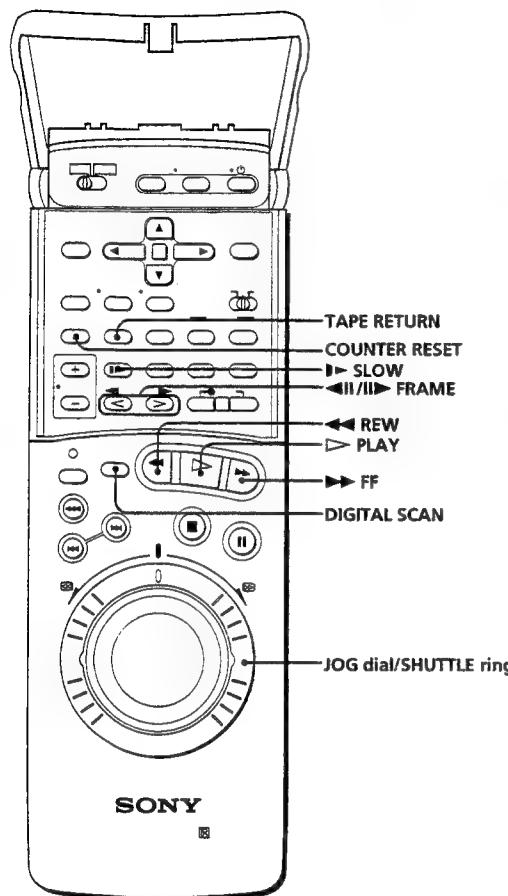
The last 20 seconds of programme 1 will not be recorded because the VCR will enter recording pause for programme 2 before programme 1 is finished.

Case 3: If you preset programme 2 to start recording before programme 1 is finished recording...

Programme 2 will start recording before programme 1 has finished.

Additional Operations

Playing/searching at various speeds



Tip

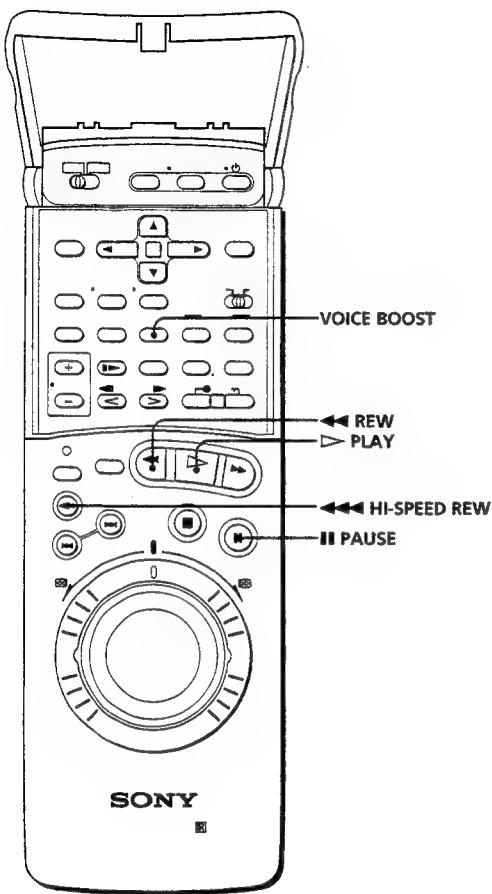
- You can improve picture quality during playback at various speeds. See "Adjusting the tracking" on page 42.

Note

- When you are displaying the TIME CODE or remaining tape length on the counter display, you can't use the TAPE RETURN button.

You can play back a tape at various speeds: high-speed, slow motion, frame by frame and so on. These options are also useful for searching for a specific point during playback. The sound is muted during these operations.

Playback options	Operation	To resume normal playback
Playing at various speeds: Normal speed One-fifth the normal speed Twice the normal speed High speed	During playback, turn the SHUTTLE ring right or left to: 1 1/5 X2 or	Release the ring and press ▷ PLAY.
Fast-forwarding/ Rewinding	During stop, press ►► FF or to ◀ REW and release.	Press ▷ PLAY.
Viewing the picture during fast-forward or rewind	During fast-forward, press ►► FF. During rewind, press ◀ REW.	Press ▷ PLAY.
Locking in a high-speed picture	During fast-forward or rewind, press DIGITAL SCAN. To change direction, press ►► FF (forward) or ◀ REW (backward).	Press ▷ PLAY.
Locking in a slow-motion picture	During playback or pause, press ► SLOW. To change direction, press ◀/▶ FRAME (backward) or ▶/▶ FRAME (forward).	Press ▷ PLAY.
Playing frame by frame	During pause, press ▶/▶ FRAME to advance the picture one frame or ◀/▶ FRAME to reverse the picture one frame.	Press ▷ PLAY.
Playing in reverse	During playback, press ◀/▶ FRAME.	Press ▷ PLAY.
Replaying a scene	During playback, first press COUNTER RESET when you come to a scene you want to replay later. When you are ready to replay the scene, press ■ STOP. Then press TAPE RETURN and ▷ PLAY in quick succession.	—



Playback options	Operation	To resume normal playback
Rewinding at high speed	Press HI-SPEED REW.	Press PLAY.
Rewind and restart play	During stop, press PLAY on the VCR while pressing down REW or HI-SPEED REW on the VCR.	—

Listening more easily to conversation recorded with a video camera

When you play a tape recorded with a video camera, you can reduce external noises (such as wind and traffic sounds), and amplify the human voice portion of the audio by using the VOICE BOOST function.

- 1 Press VOICE BOOST on the remote commander.
The VOICE BOOST indicator lights up on the VCR.
- 2 To listen to a tape in normal audio, press VOICE BOOST again to turn it off.
The VOICE BOOST indicator on the VCR goes out.

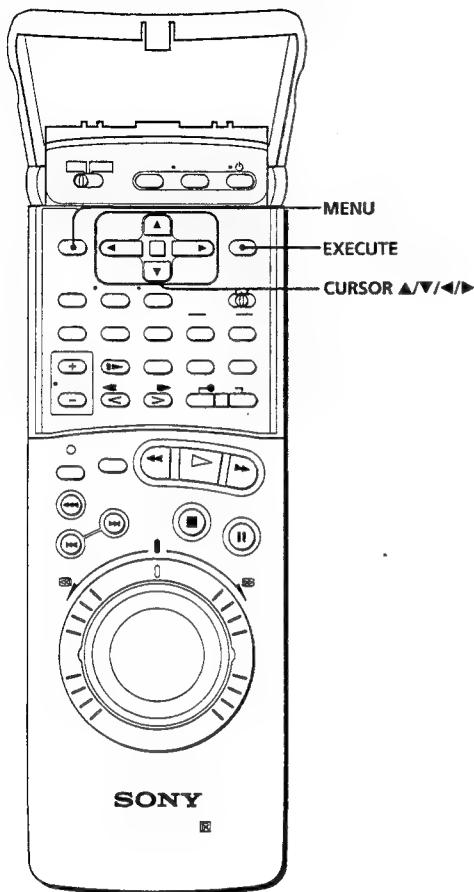
Note

- When rewinding at high speed, you will not see the time counter. After the tape is rewound to the beginning, the time counter displays "00H00M00S."

Notes

- If you use VOICE BOOST on any tapes other than those recorded on a video camera, the audio portion of the tape will be difficult to hear.
- The VOICE BOOST function operates in standard hi-fi sound, and doesn't function when using PCM audio sound.

Adjusting the picture

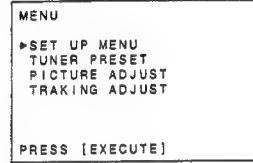


On this VCR you can adjust the colour, sharpness, and the Y/C delay. You can adjust the picture to suit your own viewing pleasure during regular tape playback. You can also adjust the tracking for slow-motion forward and reverse, and for two-times speed playback. (See page 42.) Using this menu option you can make the following picture adjustments:

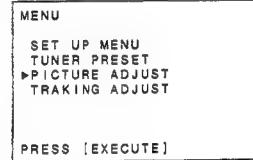
- COLOUR to adjust skin colour and colour tone and depth etc.
- SHARPNESS to obtain a clearer more precise picture.
- Y/C DELAY to adjust colour on the right or left portions of the picture.

Example of SHARPNESS adjustment

1 Press MENU.

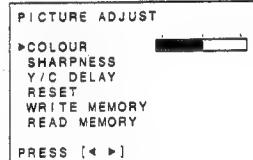


2 Press CURSOR ▲▼ to move the cursor (►) to PICTURE ADJUST.



3 Press EXECUTE.

The PICTURE ADJUST options appear.

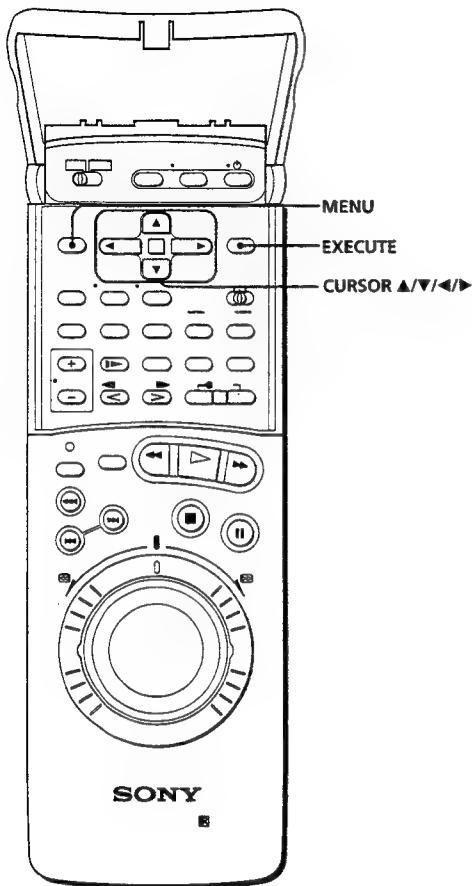


4 Press CURSOR ▲▼ to move the cursor (►) to SHARPNESS.

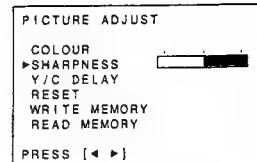


Note

- The video signal is divided into Y (brightness element) and C (colour element). The time delay gap between the transmission of these two elements is known as "Y/C delay."

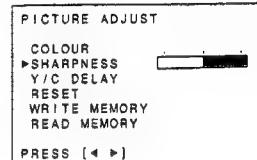


- 5 Press CURSOR ▲/▼ to move the tracking bar (■) to adjust the sharpness.**



- 6 Press EXECUTE.**

The new sharpness adjustment appears on the screen.

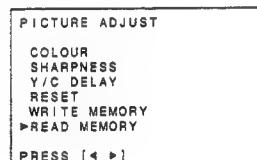
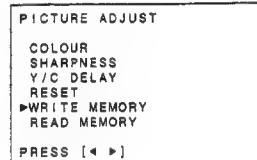


- 7 To store your settings in memory, follow steps 1 to 3, then make your settings, then do the following:**

- 1 Press CURSOR ▲/▼ to move the cursor (►) to WRITE MEMORY.
- 2 Press EXECUTE to enter the settings.

To recall your stored setting, press READ MEMORY.

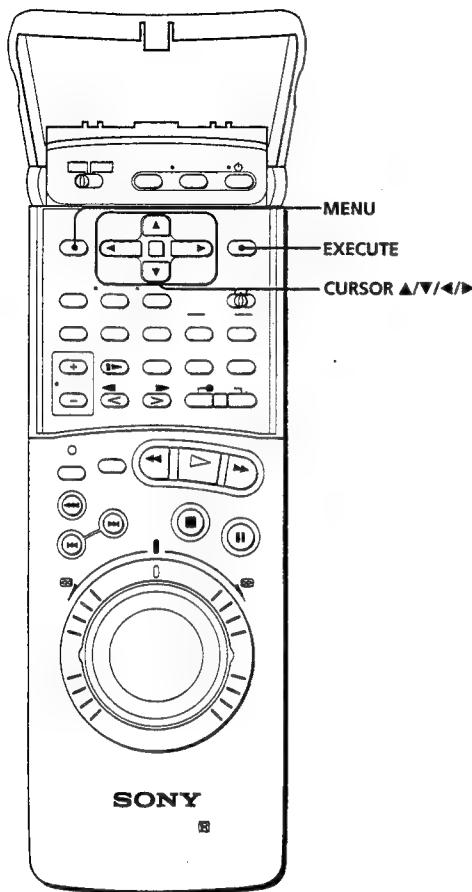
When you want to change settings, press CURSOR ▲/▼ to move the cursor (►) to RESET, then press EXECUTE to delete the WRITE MEMORY settings. These are automatically reset to the default settings as adjusted at the factory at the time of shipment.



Notes

- When the EDIT switch is set to ON, the PICTURE ADJUST settings are automatically set to default.
- Usually the default setting are adequate unless the tape is of poor quality or recording was made on another VCR.

Adjusting the picture (continued)

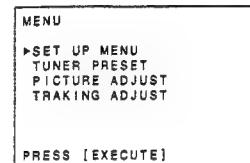


The VCR automatically adjusts the picture for the best possible playback or recording. If, however you find the automatic adjustment unsatisfactory, you can adjust the picture manually.

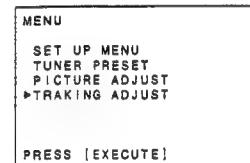
Adjusting the tracking

Though the VCR automatically adjusts the tracking when playing a tape, distortion may occur if the tape was recorded in poor condition. If so, manually adjust the tracking condition during SLOW, -SLOW, or X2 playback. The tracking can only be adjusted automatically during normal playback.

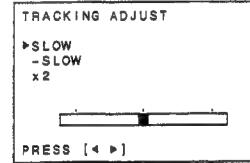
1 Press MENU.



2 Press CURSOR ▲/▼/◀/▶ to move the cursor (►) to TRACKING ADJUST.

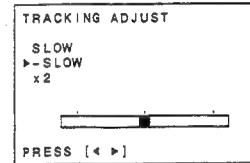


3 Press EXECUTE.

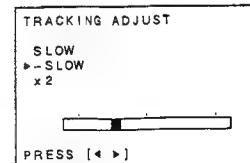


4 Press CURSOR ▲/▼/◀/▶ to move the cursor (►) to the tracking adjustment position you wish to select (SLOW, -SLOW, X2).

- To adjust tracking when in forward slow motion, select SLOW.
- To adjust tracking when in reverse slow motion, select -SLOW.
- To adjust tracking when in X2 (two-times speed), select X2.



5 Press CURSOR ▲/▼/◀/▶ to move the tracking bar (■) to adjust the tracking for the mode you are in.



6 Press EXECUTE.

Reducing picture noise

When you play a tape that is in poor condition you can improve the playback quality by using the NR (Noise Reduction) function.

To change NR settings

Press NR to select the desired setting:

When	NR level	NR indicator in the operation panel display	The TV screen shows
In normal playback (usually at this setting)	NORMAL	Lights up	"NR STD"
You want to reduce noise as much as possible	MAXIMUM	Lights up	"NR MAX"
You want a clear picture outline even with the existing noise	OFF	No indication	"NR OFF"

Notes

- If the picture flickers when adjusting the tracking, return the tracking bar (■) to the center position and try again.
- When viewing in reverse slow motion, even if you have adjusted the tracking, the picture might flicker and the colours might not be clear.

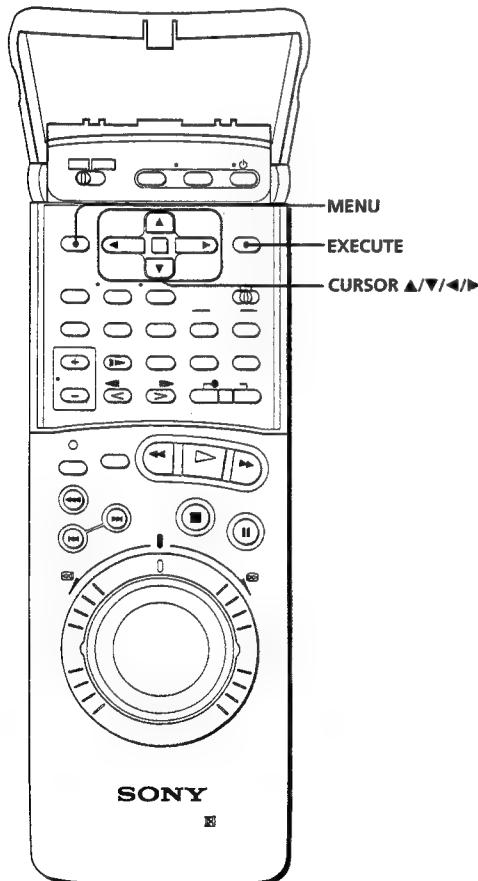
Notes

- When changing the NR setting, it takes approximately 3 seconds for the new setting to show on the TV screen.
- If TBC is set to OFF in the SET UP MENU, you cannot use the NR function.

Searching using the index function – index search

Notes

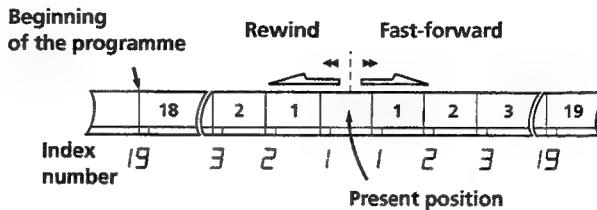
- You can't mark an index signal when you start recording from recording pause. However, while in recording pause, you can mark an index signal if the channel is changed.
- Leave an interval of at least 2 seconds for SP mode, and at least 4 seconds for LP mode, between indices so that the VCR can detect the signals correctly.
- An index signal is a 10-second preview, and the last scene of this 10-second interval remains displayed on the TV screen after the preview.



An index signal is automatically recorded at the beginning of a scene when you start recording. You can find specific scenes easily using the marks (index points). There are two kinds of index searches you can make, "normal" and "date." You can use the "date" index for read only.

How the index function works

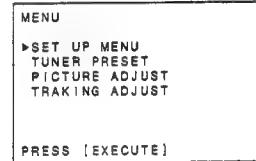
The index works as a divider between scenes, and is not numbered. So, when you specify the index mark later, you have to specify the relative position from the current position.



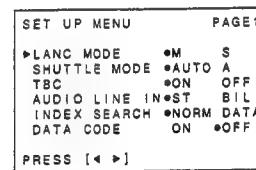
Locating an index by number – "normal" INDEX SEARCH

Locate an index by indicating how many index signals ahead or behind the scene is from the tape's current position. You can specify up to 19 index points either ahead or behind the current position. See "Looking at menu options" on page 48 to set the INDEX menu option.

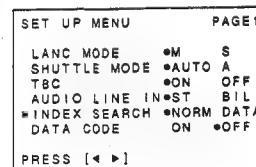
- 1 Insert an indexed tape into the VCR, then press MENU.

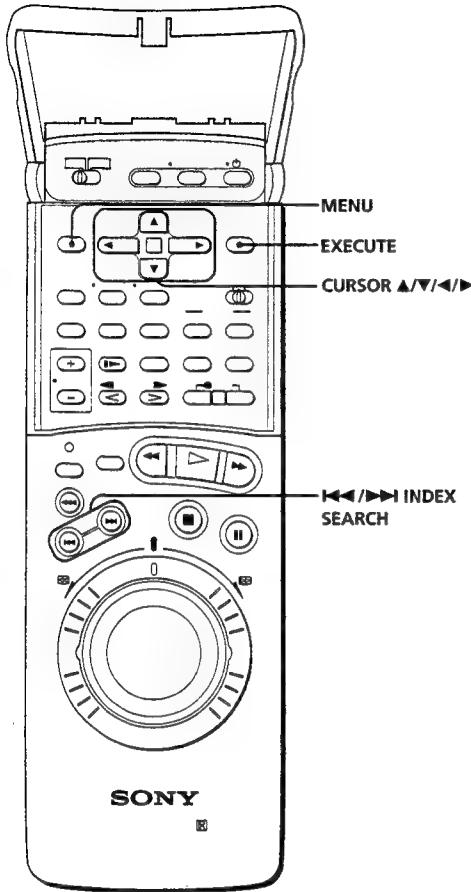


- 2 Press CURSOR ▲/▼/◀/▶ to move the cursor (▶) to SET UP MENU, then press EXECUTE.



- 3 Press CURSOR ▲/▼/◀/▶ to move the cursor (▶) to INDEX SEARCH, then highlight NORM.





- 4 Press $\blacktriangleleft/\triangleright$ INDEX SEARCH repeatedly until the index number you want appears on the TV screen:**

- To locate succeeding programmes, press \triangleright INDEX SEARCH.
- To locate preceding programmes, press \blacktriangleleft INDEX SEARCH.

The VCR starts searching and the index number on the TV screen counts down to zero in numerical order. Playback starts automatically from that point.

INDEX -2
SEARCH

Locating an index by date - "date" INDEX SEARCH

You can locate a desired scene by date if the tape you are using was recorded on by a video camera that has a date code function. You can call up to 19 index points by searching for DATA CODE signals. See "Looking at menu options" on page 48 to set the INDEX menu option.

- 1 Insert an indexed tape into the VCR, then press MENU.**

MENU
►SET UP MENU
TUNER PRESET
PICTURE ADJUST
TRAKING ADJUST

PRESS [EXECUTE]

- 2 Press CURSOR $\Delta/\nabla/\blacktriangleleft/\triangleright$ to move the cursor (\triangleright) to SET UP MENU, then press EXECUTE.**

SET UP MENU PAGE1
►LANC MODE •M S
SHUTTLE MODE •AUTO A
TBC •ON OFF
AUDIO LINE IN•ST BIL
INDEX SEARCH •NORM•DATA
DATA CODE ON •OFF

PRESS [$\blacktriangleleft\triangleright$]

- 3 Press CURSOR $\Delta/\nabla/\blacktriangleleft/\triangleright$ to move the cursor (\triangleright) to INDEX SEARCH, then select DATA.**

SET UP MENU PAGE1
►LANC MODE •M S
SHUTTLE MODE •AUTO A
TBC •ON OFF
AUDIO LINE IN•ST BIL
►INDEX SEARCH NORM•DATA
DATA CODE ON •OFF

PRESS [$\blacktriangleleft\triangleright$]

- 4 Press $\blacktriangleleft/\triangleright$ INDEX SEARCH repeatedly until the index number you want appears on the TV screen:**

- To locate succeeding programmes, press \triangleright INDEX SEARCH.
- To locate preceding programmes, press \blacktriangleleft INDEX SEARCH.

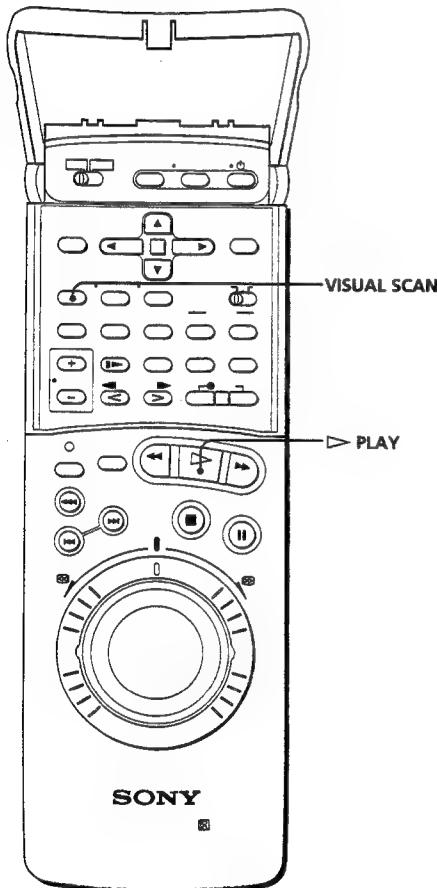
The VCR starts searching and the index number on the TV screen counts down to zero in the order in which the indices were dated. Playback starts automatically from that point.

DATE -3
SEARCH

Searching using the index function – index search (continued)

Notes

- If the tape you are using has no index marks the visual scan function doesn't work.
- If the first scene appears in black and white the other scenes may also be in black and white.
- After you press VISUAL SCAN while the tape is rewinding, the counter displays “:-:-:-”.
- When using the visual scan function the first scene on the first few seconds of the tape may not be displayed.

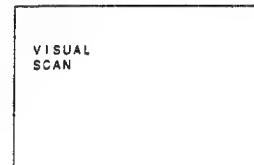


Locating up to 9 index points visually – VISUAL SCAN

Using the visual scan function you can find and play a programme you've marked with an index signal. You can view up to 9 different scenes on the TV screen at the same time. Either numbered or dated indexed scenes can be viewed. When you want to find a scene but don't know the exact location you can find it by using this function. You can view up to 9 scenes on the TV screen to search for the desired scene.

1 Press VISUAL SCAN while in stop mode.

The tape rewinds automatically. When the tape is rewound to the beginning it then fast-forwards to the first index signal. The first 1 scene appears on the TV screen. The VCR then fast-forwards to the next index signal. After 9 scenes are displayed on the TV screen the VCR stops searching for index signals.



Scene 1	Scene 2	Scene 3
Scene 4	Scene 5	Scene 6
Scene 7	Scene 8	Scene 9

2 Press VISUAL SCAN again to view the next (10th) index signal in the 1 position.

3 When you see the scene you want to view, press ▶ PLAY.

Scene 10		

Notes

- When you mark an index signal, the recorded sound may be interrupted and a black bar appears on at the bottom of the TV screen, but the tape will not be damaged.
- Leave an interval between indices of at least 2 seconds for SP mode, and at least 4 seconds for LP mode, so that the VCR can detect the signals correctly.
- If you mark or erase an index signal on a tape that has been marked with date codes, the date codes may be erased.
- You can't mark or erase index signals on cassettes that have their safety tab in the red position.

Marking index signals

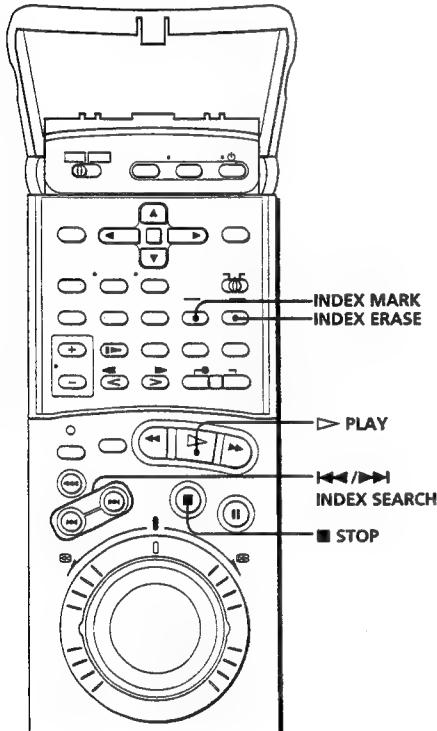
You can mark and index anywhere on a tape, so that you can easily find the specific point later on. Press INDEX MARK while in recording or playback mode.



This VCR cannot mark a "date" index.

Erasing index signals

You can remove any unwanted "normal" index signals using this function. However, you can't erase "date" index signals.



- 1 **Press $\blacktriangleleft/\triangleright$ INDEX SEARCH while in stop or playback mode.**
The VCR rewinds or fast-forwards the tape automatically, and playback starts when the index number indicated on the TV screen reaches "0."
- 2 **Press INDEX ERASE during the 10-second preview for the index you want to erase. To stop erasing index signals, press ▶ PLAY or ■ STOP.**



Note

- You can't erase index signals that occur at the beginning of the tape, or those on tapes marked by a video camera or other VCR.

Looking at menu options

The SET UP MENU provides you with various options to set up and customise your VCR. See the table below for the available menu choices. Initial settings are indicated in bold letters.

Menu choices

Menu option	Set this option to
LANC MODE	<ul style="list-style-type: none">• M to control another VCR with this VCR using the LANC  connector.• S to control this VCR with another VCR.
SHUTTLE MODE	<ul style="list-style-type: none">• AUTO to use this remote commander with a VCR that has a JOG/SHUTTLE function.• A to use this remote commander with a VCR that doesn't have a JOG/SHUTTLE function.
TBC	<ul style="list-style-type: none">• ON to correct any slight shaking or vibration.• OFF to leave any shaking or vibration uncorrected.
AUDIO LINE IN	<ul style="list-style-type: none">• ST to listen to and record stereo sound using the AUDIO LINE INPUT jacks.• BIL to listen to and record bilingual programmes using the AUDIO LINE INPUT jacks.
INDEX SEARCH	<ul style="list-style-type: none">• NORM to search for index signals in numerical order.• DATA to search for index signals by date.
DATA CODE	<ul style="list-style-type: none">• OFF to not have the day, month, year, entered on the tape.• ON to have the day, month, year, entered on the tape. (Use if your video camera has this function.)
COLOUR SYSTEM (EV-S9000E B only)	<ul style="list-style-type: none">• AUTO to tune in French broadcasts (normal setting).• PAL to tune in the PAL system, such as German or Swiss broadcasts. If the signal is too weak or if the picture is distorted, set to PAL (SECAM programmes may not be displayed properly).
Hi-8	<ul style="list-style-type: none">• AUTO when you want to record a Hi-8 tape in the Hi-8 format.• OFF when you want to record a Hi-8 tape in the standard 8 mm format.

RF MODULATOR	<ul style="list-style-type: none"> • ON if you have connected the VCR to your TV using only the aerial cable. • OFF if you have connected the VCR to your TV using the EURO-AV, S, or AV cable.
L3 IN VIDEO	<ul style="list-style-type: none"> • NORM if you have connected the video output jack of the other VCR to the LINE IN 3 VIDEO. • S if you have connected the S VIDEO output connector of the other VCR to the LINE IN 3 VIDEO connector of this VCR.
EURO AV OUT	<ul style="list-style-type: none"> • NORM when using a EURO-AV SCART cable. • S when using a EURO-AV SCART cable connected to a TV with an S connection.
NICAM (<i>EV-S9000E NP/UB only</i>)	<ul style="list-style-type: none"> • ON to listen to and to record stereo/bilingual programmes that are broadcast on the NICAM system and recorded on the PCM track. • OFF when you do not wish to use the NICAM system.

Editing

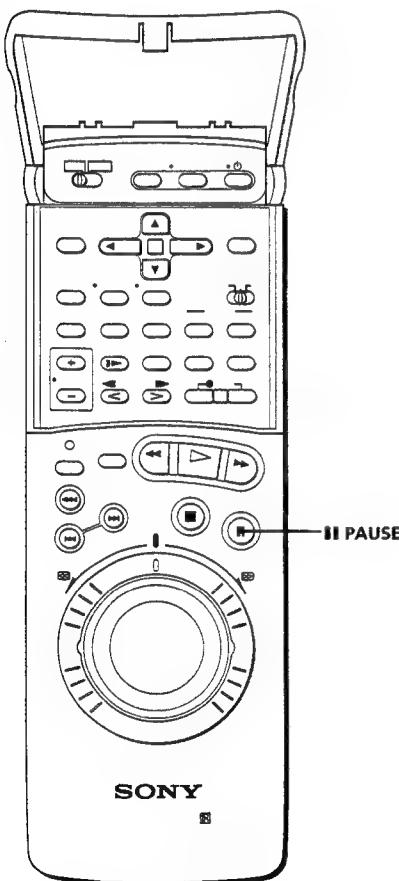
Shuttle editing

This section shows you how to edit VCR recordings in the most basic way: shuttle editing. The VCR also provides the following ways of editing:

- Editing to or from another VCR or camcorder—"Editing with another VCR" (page 52).
- Editing via the LANC  or CONTROL S jacks of two VCRs—"Synchronised editing" (page 54).
- Taking events from one tape and assembling them onto another tape in any order—"Assemble editing" (page 58).
- Combining editing modes for easier editing—"Using the edit monitor function" (page 62).
- Adding music or narration on the PCM track—"Audio dubbing" (page 63).

Note

- During shuttle editing, use the JOG dial/**SHUTTLE ring** on the **VCR**, not on the remote commander. Use the **SHUTTLE EDIT** buttons on the remote commander instead.



During recording

If you want to cut out events such as TV commercials, you can pause recording and play back the tape in the reverse direction until the beginning of an unwanted event is reached. Then, record over it. This feature only works from the VCR. During timer recording, you can't use this function.

1 Press **II PAUSE** during recording.

The VCR enters recording pause mode.

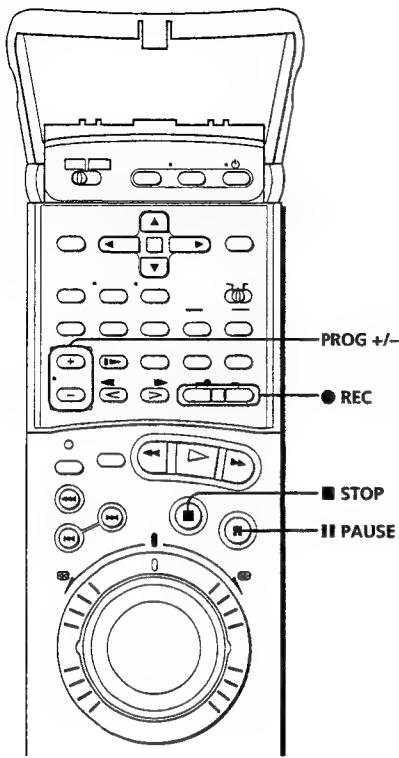
2 Turn the **JOG dial/SHUTTLE ring** on the **VCR** counter-clockwise to rewind the tape until the unwanted event appears.

If you turn the JOG dial/**SHUTTLE ring**, you can select the playback speed by how fast you turn it, and if you turn it.

When you release the dial or ring, the VCR enters recording pause mode.

3 Press **II PAUSE** when a desired event appears on the screen.

Recording starts.



During playback

You can re-record onto an unwanted portion of a pre-recorded tape. Use the JOG dial/SHUTTLE ring on the VCR.

- 1 When an unwanted event appears during playback, press II PAUSE.**
The VCR enters the playback pause mode.
- 2 Turn the JOG dial/SHUTTLE ring on the VCR until the beginning of the unwanted event appears on the screen.**
Turn the JOG dial/SHUTTLE ring to the desired playback speed.
When you release the dial or ring, the VCR enters playback pause mode.
- 3 Press ● REC on the VCR or the remote commander.**
The VCR enters recording pause mode.
- 4 Select a new programme for re-recording. Press PROG +/- on the remote commander or PROGRAM +/- on the VCR.
If you have made the connection using the line input jacks, press INPUT SELECT.**
- 5 Press II PAUSE when the event you want to record appears on the screen.**
Recording begins.

To stop recording

Press ■ STOP.

Note

- The picture may be distorted for a moment at the cut-out point (recording end point).

Editing with another VCR

This section shows you how to edit to or from another VCR or camcorder. You can make a copy of a tape using this VCR for recording or playback.

How to hook up to record on this VCR

Tips

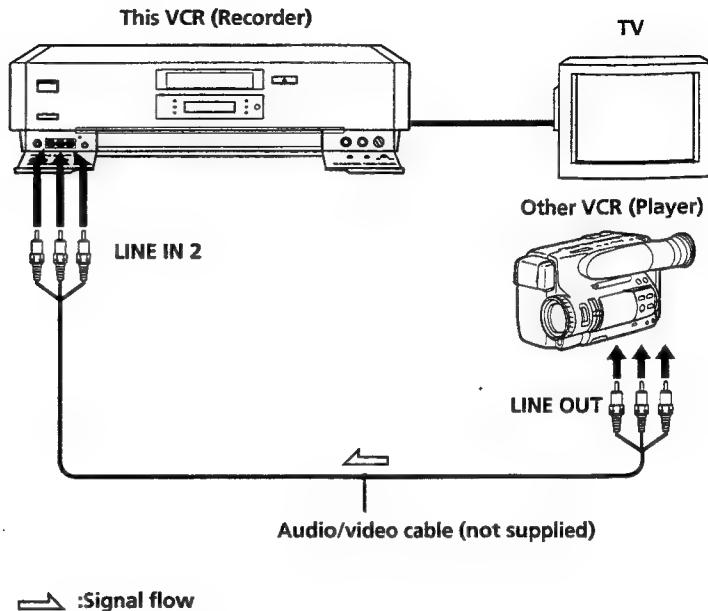
- Make sure you connect the plugs to jacks of the same colour.
- To connect the playback VCR, you can use the LINE IN 3 jacks as well. In this case, press INPUT SELECT to display "L3" in the display window.
- If the playback VCR is a monaural type and you use LINE IN 2 on the front of the VCR, connect to the AUDIO L (white) jack.

Notes

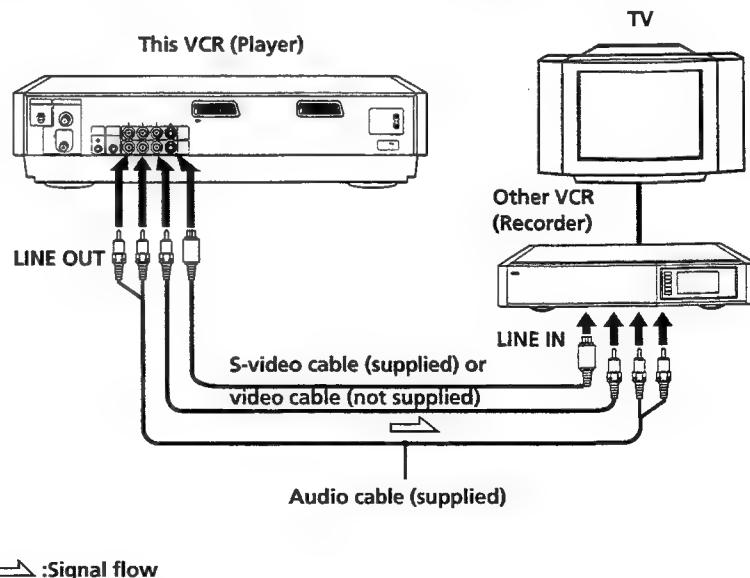
- If the playback VCR has an S-video connector, use the supplied S-video cable unless you have used it for the TV-VCR connection. This connection gives you a picture of higher quality than using the video cable. When using VIDEO or LINE IN 3 VIDEO, set L IN 3 VIDEO to S in the SET UP MENU.

If you use the VIDEO IN jack and S VIDEO IN connector at the same time when using LINE IN 2, the S VIDEO IN connector takes priority.

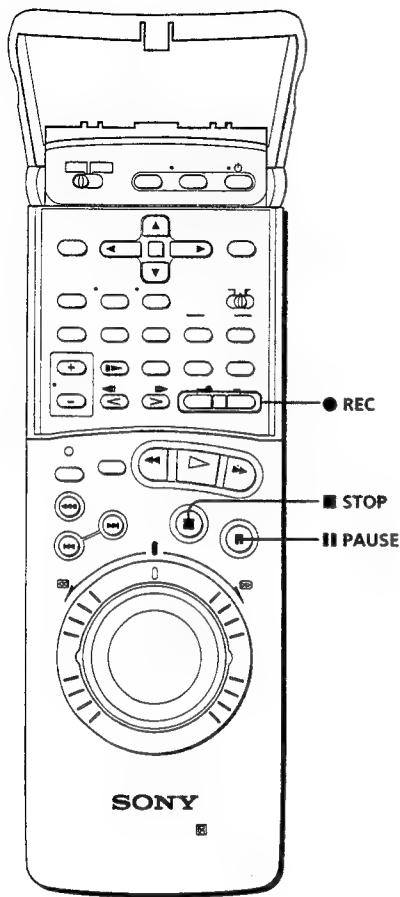
- When connecting the VCRs, do not simultaneously connect the LINE IN and LINE OUT jacks on your VCR. A humming noise may occur if you do this.
- When using this VCR for playback, press EDIT on the VCR, or the on-screen information will appear on the TV screen.



How to hook up to record to another VCR



Operation (when recording on this VCR)



Before you start editing

- Press INPUT SELECT to display "L2" in the display window.
- Press TAPE SPEED to select the recording tape speed (SP/LP).
- If the other (playback) VCR has an EDIT function, set it to ON.

1 Insert a source tape into the playback VCR. Search for the point to start playback and set the VCR to playback pause.

2 Insert a tape into this (recording) VCR. Search for the point to start recording and press II PAUSE.

3 Press ● REC on this VCR and set it to recording pause.

4 To start editing, press the II PAUSE buttons on both VCRs to release the VCRs from pause.

For best results, press the pause button on the playback VCR just before pressing II PAUSE on this VCR.

To stop editing

Press the ■ STOP buttons on both VCRs.

Note

- Make sure that the safety tab is in the correct position. If the playback VCR is a VHS model, make sure that the safety tab on the source tape has been removed.

Tips

- To make your editing more precise, release the VCRs from pause by pressing II PAUSE buttons on the VCRs, not on the remote commander.
- To cut out unwanted events while editing, press II PAUSE on this VCR when an unwanted event begins. When it ends, press II PAUSE again to resume recording (assemble editing).

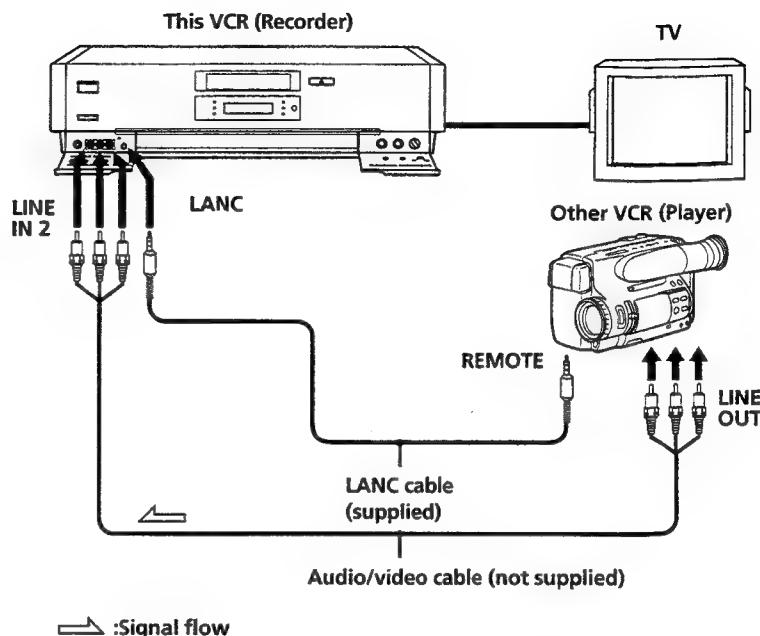
Synchronised editing

If the playback VCR has a LANC  or CONTROL S jack, connect the VCRs via the LANC  or CONTROL S jacks. This additional connection lets you control both VCRs from one VCR for easier editing.

Notes

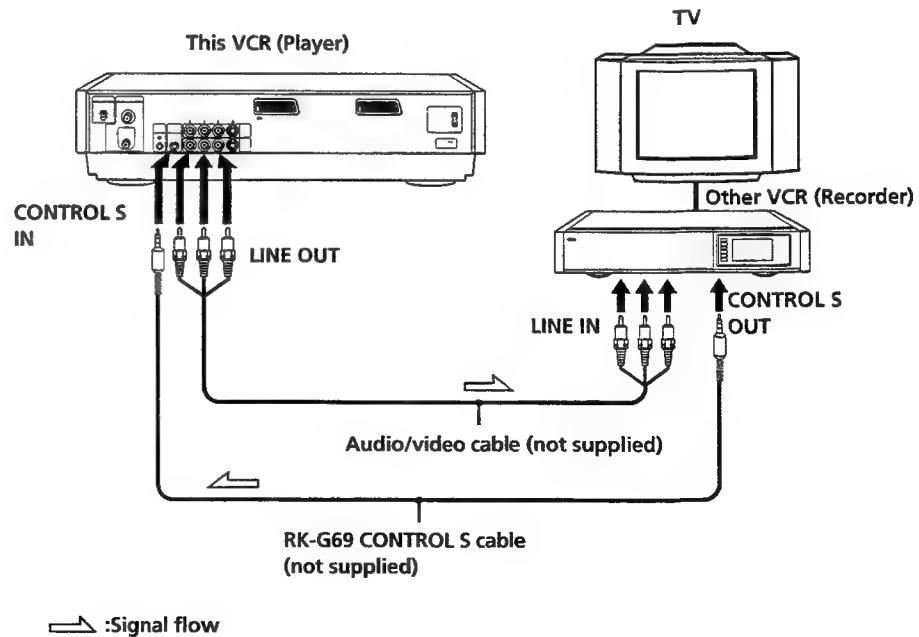
- If the playback VCR is a monaural type and you use LINE IN 2 on the front of the VCR, connect to the AUDIO L (white) jack.
- When connecting the VCRs, do not connect both LINE IN and LINE OUT jacks on your VCRs simultaneously. Doing so may cause a humming noise.
- If the playback VCR has an S-video connector, use the supplied S-video cable. This connection gives you a picture of higher quality than using the video cable. When using VIDEO or LINE IN 3 S VIDEO, set L IN 3 VIDEO to S in the SET UP MENU.
If you use the VIDEO IN jack and S VIDEO IN connector at the same time when using LINE IN 2, the S VIDEO IN connector takes priority.
- You cannot set the LANC MODE to M for the playback VCR. Set the LANC MODE to M for this VCR to make it control the playback VCR.
- Do not use the same LANC MODE setting for both VCRs, as this may cause a malfunction.
- When using this VCR for playback, press EDIT on the VCR, or the on-screen information will appear on the TV screen.

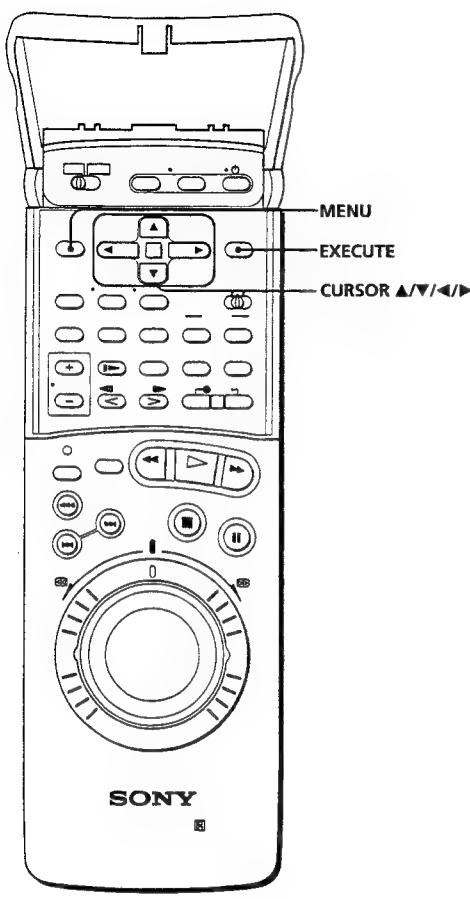
How to hook up via the LANC jacks



How to hook up via the CONTROL S jacks

The CONTROL S connection only enables you to pause and release pause. Use the LANC  jack if the playback VCR has both LANC  and CONTROL S jacks.





Setting the LANC mode

The LANC mode setting determines which VCR controls which. Here's how to control the playback VCR from this VCR.

- 1 Press MENU and select SET UP MENU.

SET UP MENU		PAGE1
► LANC MODE	•M	S
SHUTTLE MODE	•AUTO	A
TBC	•ON	OFF
AUDIO LINE IN	•ST	BIL
INDEX SEARCH	•NORM	DATA
DATA CODE	ON	•OFF

PRESS [◀ ▶]

- 2 Set LANC MODE to M by pressing CURSOR ▲/▼/◀/▶.

On the playback VCR, set the LANC mode to S and the SHUTTLE MODE to either AUTO or A, depending on the type of playback VCR you are using. See "Looking at menu options" on page 48.

SET UP MENU		PAGE1
► LANC MODE	•M	S
SHUTTLE MODE	•AUTO	A
TBC	•ON	OFF
AUDIO LINE IN	•ST	BIL
INDEX SEARCH	•NORM	DATA
DATA CODE	ON	•OFF

PRESS [◀ ▶]

- 3 Press EXECUTE to store the setting.

To control this VCR from the playback VCR

Set LANC MODE to S on this VCR and to M on the playback VCR.

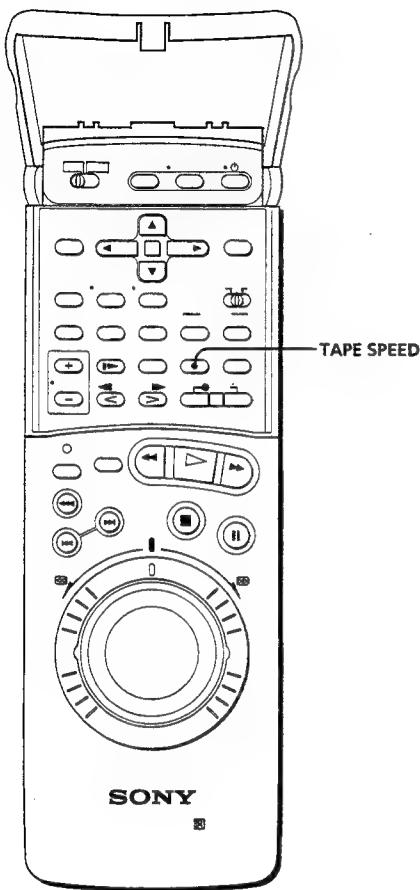
About LANC

LANC stands for Local Application Control System. The LANC  connector is used for controlling the tape transport of video equipment and peripherals connected to it. This connector has the same function as connectors indicated as CONTROL L or REMOTE.

Notes

- You can't do synchronised editing on VCRs that do not have a LANC  connector.
- If the tape recording condition of the playback VCR is poor, this VCR may display a blue colour on the TV screen for a moment. This is not an indication of a malfunction.
- When you record a stereo/bilingual tape source from another VCR, set the audio output of that VCR to output both main and sub sounds. On this VCR, set the AUDIO LINE IN option in the SET UP MENU accordingly.

Synchronised editing (continued)



Operation (when recording on this VCR)

Before you start editing

- Make connections according to the illustration on page 54.
- If the playback VCR is equipped with an S-video output connector, use the supplied S-video cable for additional connection of the VCRs.
- If the playback VCR is a monaural type, connect the white plug to its audio output jack and the white plug on the other end to the LINE IN 2 AUDIO L (white) jack of this VCR.

On the playback VCR

- If available, activate the EDIT mode.
- If available, select LAN MODE S or equivalent.

On this VCR

- Set LAN MODE to M in the SET UP MENU. See "Looking at menu options" on page 48.
- Adjust the recording level. For details, see page 27.
- Check if the playback VCR has a JOG/SHUTTLE function, then set SHUTTLE MODE to either AUTO or A. (See "Looking at menu options" on page 48.) Note that some VCRs do not have a JOG/SHUTTLE function.
- Select the tape speed, SP or LP, using the TAPE SPEED button.

-
- 1** Insert a source tape into the playback VCR. Insert a tape for recording into this VCR.
-
- 2** Press EDIT STANDBY on this VCR so that the EDIT STANDBY indicator lights up on the operation panel. This VCR enters recording pause and the playback VCR enters pause.
-
- 3** Press LANC REMOTE on the VCR so that the LANC REMOTE indicator lights up on the operation panel. Then turn the JOG dial/SHUTTLE ring to locate the start point on the playback VCR.
You can also use the tape transport buttons on this VCR.
-
- 4** Release the JOG dial/SHUTTLE ring when you have found the desired point.
The playback VCR enters playback pause. If you have used any of the tape transport buttons, set the playback VCR to playback pause.
-
- 5** Press LANC REMOTE on the VCR so that the indicator goes off. Then turn the JOG dial/SHUTTLE ring to locate the insertion start point on this VCR's tape.
-
- 6** Press SYNCHRO EDIT/START.
Synchronised editing starts.
-
- 7** When you have finished your editing session, press SYNCHRO EDIT/START.
Both VCRs enter recording pause.
-
- 8** To edit more scenes, repeat steps 3 to 7.
-
- 9** When you have finished your editing session, press EDIT STANDBY.
Both VCRs stop.
-

Assemble editing

With this function you can take events from one tape and assemble edit them onto another tape.

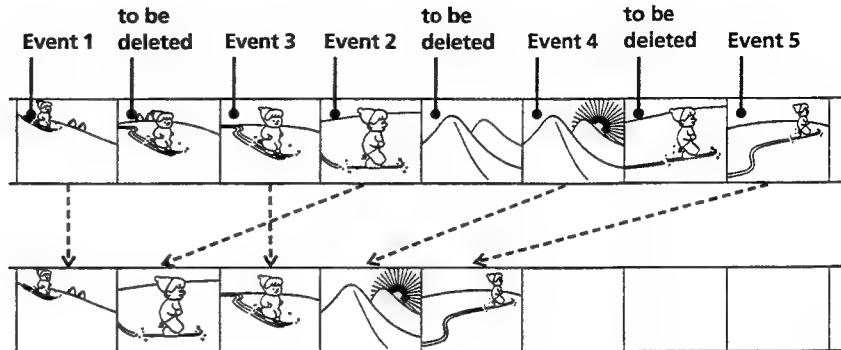
You can insert as many events onto to the new tape that you require. Using the assemble editing function, you can assemble edit up to eight different events at a time.

Tips

- If the playback VCR you're using does not have the TIME CODE WRITE function but only a real-time counter, precise editing cannot be guaranteed.
- For the TIME CODE WRITE function to work correctly, you must enter the time code on the entire portion of the tape you want to edit.
- When using the TIME CODE WRITE function, you can easily search for a desired event as each frame is given a readable code signal.

Notes

- The TIME CODE WRITE function on this VCR and that on professional-level VCRs are not compatible.
- If you press another button while writing the time code, writing stops automatically.
- If you use a tape that has been recorded in both SP and LP tape speeds, the TIME CODE WRITE function may not work properly.
- If you connect to a video camera that shows streaks or snow when freezing the picture, the text on the screen may be difficult to read. Make your editing decisions visually to ensure that the events you want to edit are precisely aligned, or use the edit monitor function instead (see page 62).
- When using the TIME CODE WRITE function, a black band may appear at the bottom of the screen. This is not an indication of a malfunction. This black band will not appear on the events you are going to edit.



Using the TIME CODE WRITE function on a playback tape

When you connect this VCR to a VCR that features the TIME CODE WRITE function, you can use this function for assemble editing. This function allows you to perform more precise editing. It inserts frame position signals on the tape, and thus indexes (by numbers) the portions to be edited. However, if there are unrecorded segments on the portion that you want to edit, precise editing can't be guaranteed. In this case you must enter the time codes onto the playback tape in the other VCR.

- 1 Rewind the playback tape to the beginning.
- 2 Press ▶ PLAY, then press ■ PAUSE.
- 3 Press TIME CODE WRITE on the VCR.
- 4 Press ■ PAUSE to start playback.
Time code information is automatically written onto the tape.
- 5 Press ■ STOP at the end point of the portion that you want to edit.
Time code insertion stops.

Operation (when recording on this VCR)

Notes

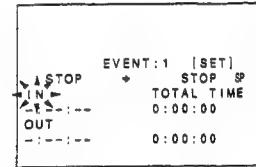
- When you use LANC REMOTE, you can control tape operation on the playback VCR.
- Set the SHUTTLE MODE option on the playback VCR to either AUTO or A to match the setting on this VCR. See "Looking at menu options" on page 48.
- Make sure that the cassette you insert into this VCR has its tab set to REC.
- The ASSEMBLE button is only operable in stop mode.

Before you start editing

- Connect this VCR to the playback VCR using the same connections as illustrated in the section "Synchronised editing" on page 54. (Be sure to read the operating instructions for the playback VCR before making connections.)
- Set the TV to video input.
- Press INPUT SELECT to select the line input that the playback VCR is connected to.
- If the playback VCR has a TIME CODE function, activate it to display the time code in the display window counter.
- On the playback VCR, set the SHUTTLE MODE to either AUTO or A (see page 48).

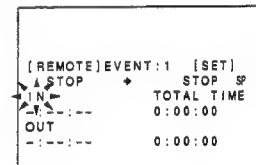
1 Press ASSEMBLE on this VCR.

The assemble editing menu appears on the TV.



2 Press LANC REMOTE on this VCR.

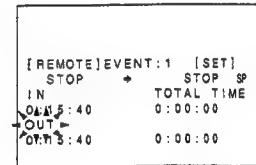
"REMOTE" appears on the TV screen, and the REMOTE indicator lights up on the operation panel. You can now control the other VCR's tape transport buttons from this VCR.



3 Find the first frame of the event you want to assemble edit.

Using this VCR to operate the playback VCR to find the event you want to edit, then proceed to step 4.

4 Press MARK on the VCR to mark the "IN" frame for the event you are assemble editing.



(continued)

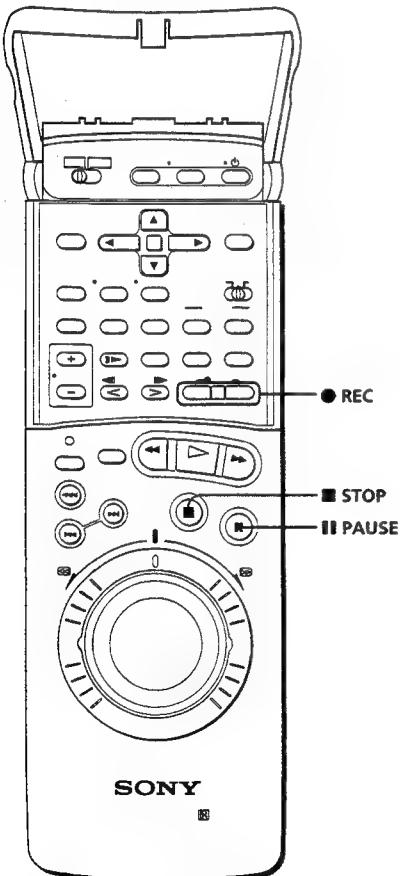
Assemble editing (continued)

Tip

- The TOTAL TIME figure gives the total time for all the events. The tape speed of the recording tape must match that of the events to be entered, or the events will not be recorded properly.

Notes

- Leave a space of about two seconds between the IN frame and OUT frame, or the events cannot be marked correctly.
- When you want to stop assemble editing, press ASSEMBLE again.
- When the TIME CODE is less than 0:01:00:00, the editing will not be very precise. In this case, do the editing manually as described in the "Synchronised editing" section on page 54.



5 Find the last scene of the event you want to assemble edit.

Once the end of the first event has been found, go to step 6.

6 Press MARK on the VCR to mark the "OUT" frame.

"IN" flashes, and the total time of the event you have selected is displayed. After a couple of seconds, the VCR is ready for setting the next event.

[REMOTE] EVENT: 2 [SET]		TOTAL TIME
STOP	+	STOP SP
IN 0:15:40		0:20:10

7 Repeat steps 3 to 6 to select another event for editing.

Up to 8 events can be selected for assemble editing.

8 When you have finished selecting your events, press ■ STOP.

9 Press LANC REMOTE when you are finished designating the required events.

The REMOTE indicator no longer appears. The playback VCR can no longer be controlled by this VCR.

EVENT: 8 [SET]		TOTAL TIME
STOP	+	STOP SP
IN 1:22:11		0:03:25

10 Find the recording start point using this VCR.

When the start point has been found, press ■ PAUSE and then ● REC.

11 Press SYNCHRO EDIT/START.

"EXE" appears on the TV screen, and assemble editing starts. When editing is completed, the VCR enters the recording pause mode.

EVENT: 1 [EXE]		TOTAL TIME
PB	+	STOP SP
IN 0:15:40		0:20:10

12 When you have finished your editing session, press ASSEMBLE.

To assemble edit more than 8 events

Repeat the above described procedure to assemble edit the additionally required number of events.

- 1 After you've finished one assemble editing session, press ASSEMBLE. The assemble editing mode is cancelled. The contents stored in memory are deleted.
- 2 When the VCR enters recording pause mode, press ■ STOP.
- 3 Repeat from step 1 on page 59.

Tip

- For the purpose of protecting the tape, when you are in recording pause mode, after 5 minutes the VCR automatically enters the stop mode.

Notes

- When you press BACK, the VCR returns to the last frame of the event you have selected. Press BACK again to return to the first frame of the event.
If you haven't designated an end frame, the tape records through to the end.
- If you press ■ PAUSE during assemble editing, the event you are editing is set. If you have another event, the next event is also automatically edited.
- During fast-forwarding or rewinding, if the TIME CODE indicator on the playback VCR should show ":-:-", the assemble editing function may not work. In this case, please use the synchronised editing function instead.

To change the settings stored in memory

Press BACK on the VCR.

Only the last event you have entered for assemble editing can be changed. If you press BACK twice in a row, the event entered last is deleted.

To check the settings stored in memory

Press ■ STOP. To cycle through the designated events, press BACK.

To stop assemble editing temporarily

Press SYNCHRO EDIT/START. When you wish to resume assemble editing, editing starts from the first event.

Using the edit monitor function

The edit monitor function both simplifies and perfects your editing. This means that you can combine the features of assemble and synchronised editing. When you choose to do this, you can monitor both the visual and time-frame aspects of up to eight events in one editing session.

To monitor editing

When the normal editing mode is displayed on the TV screen, you can switch between editing modes according to the illustration below:

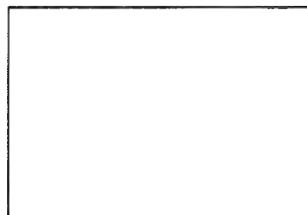
Tip

- If you connect to a video camera that shows streaks or snow when freezing the picture, the text on the screen may be difficult to read. The edit monitor function lets you read the information easily.

Note

- Depending on the playback status, one of the screens on the edit monitor may not be displayed.

Normal editing

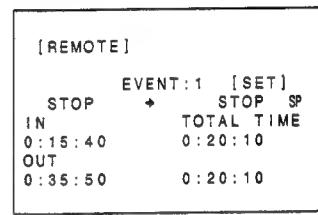


← →
Press ASSEMBLE

on-screen picture

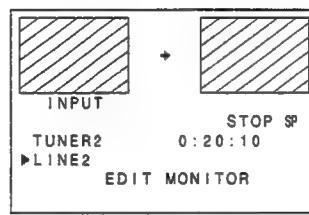
↑ Press EDIT
↓ MONITOR

Assemble editing



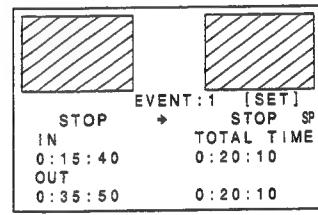
superimposed text

↑ Press EDIT
↓ MONITOR



← →
Press ASSEMBLE

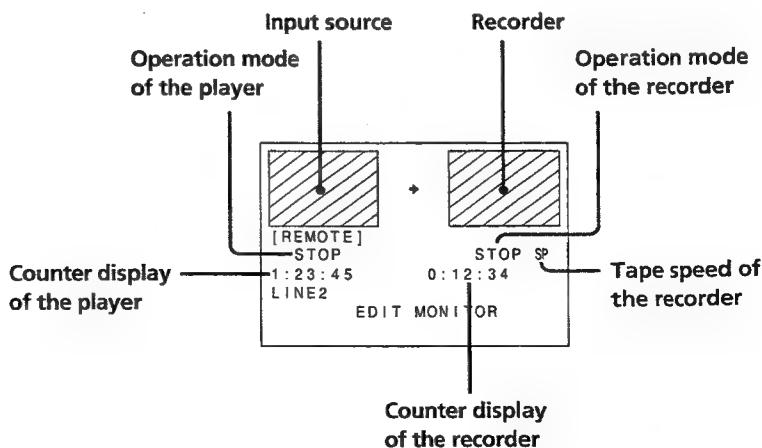
The EDIT MONITOR



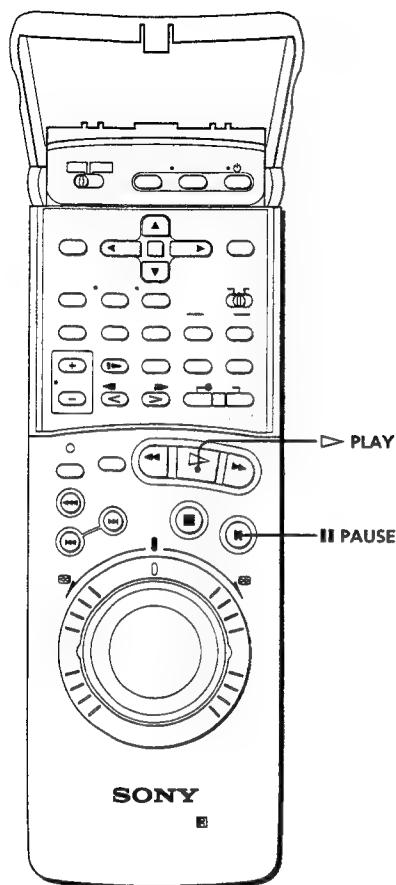
The EDIT MONITOR + assemble editing

For more details on the individual editing modes mentioned here, refer to the respective sections.

The EDIT MONITOR

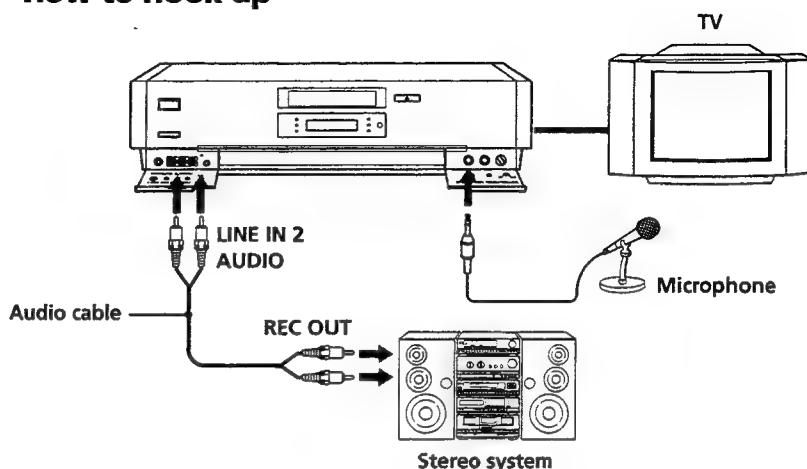


Audio dubbing



You can add music or narration on a pre-recorded tape while watching the VCR playback picture. Audio-dubbed sound is recorded on the PCM track. (See page 26.)

How to hook up



Operation

Before you start editing

- Press INPUT SELECT to display "L2" in the display window.
- Set the AUDIO MONITOR selector to PCM.

- 1 Set the PCM REC LEVEL control to the desired setting.**
This allows you to balance the sound level of the sound to be dubbed against that of the standard track.
- 2 Press ▶ PLAY.**
- 3 Find the start point of the tape segment that you want to dub new sound onto, and press II PAUSE.**
- 4 Press AUDIO DUB.**
The AUDIO DUB indicator lights up in the display window.



Notes

- You must be in playback pause mode before pressing AUDIO DUB. (If you are in recording pause mode, you cannot use the audio dubbing features.)
- Audio dubbing cannot be done if the safety tab on the cassette is slid to show the red portion.

(continued)

Audio dubbing (continued)

5 Press **II PAUSE** when you start the playback source, or want to start adding narration using a microphone.

6 When you have finished your audio dubbing session, press **■ STOP** on this VCR.

Tips

- See "How sound is recorded on a video tape" on page 26.
- For fade-in operation, adjust the PCM REC LEVEL control from the zero point to the normal position.
For fade-out operation, turn it from the normal position to the zero point.
- The sound from the LINE IN AUDIO 2 or 3 jacks on the rear panel and the MIC jack on the front panel can be mixed.

Notes

- The dubbed sound cannot be played back by a VCR without PCM recording or playback functions.
- Dubbing erases the pre-recorded sound on the PCM track.
- During dubbing, black bars may appear in the lower parts of the screen. This does not affect the recorded images.
The picture may shake or colours may fade on certain TVs.
- Sound from a microphone is recorded in monaural.
- When the microphone is not in use, do not connect the microphone to the MIC jack, or the sound will be mixed with the sound from LINE IN AUDIO 2 or 3.
- If you dub new sound to a tape that contains DATA CODE information, this information is erased.

To listen to the sound on both the PCM and the standard track

Set the AUDIO MONITOR switch on the operation panel to MIX. If the sound is hard to distinguish, use the STD AUDIO LEVEL to adjust the standard sound level. You cannot adjust the PCM sound level.

Additional Information

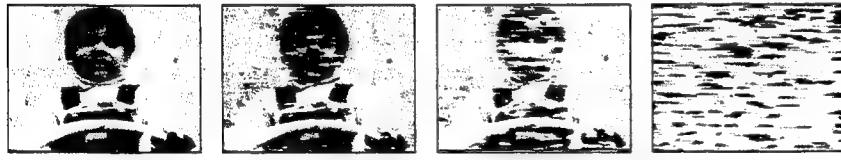
Troubleshooting

Symptom	Remedy
Power	The ON/STANDBY switch does not function.
	<ul style="list-style-type: none"> • Connect the mains lead securely. • Make sure the VCR is not standing by for timer recording.
Clock	The clock has stopped and “-:-” lights in the display window.
	<ul style="list-style-type: none"> • The clock stops if the VCR is disconnected from the mains for more than an hour. Reset the clock (and timer).
Playback	The playback picture does not appear on the TV screen.
	<ul style="list-style-type: none"> • Make sure the TV is set to the programme position for the VCR, or set it to video input.
	<p>The picture is not clear.</p> <ul style="list-style-type: none"> • The video heads are dirty (see below). Clean the video heads using the Sony video head cleaning cassette. If this cleaning cassette is not available in your area, have the heads cleaned at your nearest Sony service facility (a standard service charge will be required). Do not use a commercially available wet-type cleaning cassette, as it may damage the video heads. • The video heads may have to be replaced. Consult your local Sony dealer for more information.

(continued)

Symptoms caused by contaminated video heads

- Normal picture
- Rough picture
- Unclear picture
- No picture (or black & white screen appears)



Initial —————→ terminal

Troubleshooting (continued)

	Symptom	Remedy
Recording	A TV programme does not appear on the TV screen.	<ul style="list-style-type: none"> Make sure the TV is set to the programme position for the VCR, or set it to video input.
	TV reception is poor.	<ul style="list-style-type: none"> Adjust the TV aerial. If the VCR is connected to the TV using only the aerial lead, set the RF MODULATOR option in the SET UP MENU to ON. Adjust the RF CHANNEL screw at the rear of the VCR with the supplied RF screwdriver.
	The tape ejects when you press REC .	<ul style="list-style-type: none"> Check that the safety tab has not been slid to show the red portion underneath.
	Nothing happens when you press REC or TIMER REC ON/OFF .	<ul style="list-style-type: none"> Make sure the tape has been wound to the beginning. Select the correct source with the INPUT SELECT button. Select a channel number when recording TV programmes; select "L1", "L2" or "L3" when recording from other equipment.
Timer recording	The timer does not operate.	<ul style="list-style-type: none"> Check that the clock is set. The clock and timer stop if the VCR is disconnected from the mains for more than one hour. Make sure a tape has been inserted. Check that the safety tab has not been slid to show the red portion underneath. Make sure the tape has been wound to the beginning. Make sure a programme has been set for timer recording.
Others	A tape cannot be inserted.	<ul style="list-style-type: none"> Check that a tape isn't already in the tape compartment.
	The remote commander does not function.	<ul style="list-style-type: none"> Make sure you are pointing the remote commander at the remote sensor on the VCR. Replace all the batteries in the remote commander with new ones if they are weak. Set the COMMAND MODE VTR1, VTR2, or VTR 3, to the same position on both the VCR and the remote commander.
	The VCR needs to be cleaned.	<ul style="list-style-type: none"> Clean with a dry, soft cloth, or a soft cloth slightly moistened with a mild detergent solution. Do not use any type of solvent, such as alcohol or benzine.
	When you do synchronised editing, you can't control the other VCR from this VCR.	<ul style="list-style-type: none"> The LANC mode of the other VCR is set to S (see page 48). The LANC mode of this VCR is set to M (see page 48.)

If you have any questions or problems concerning your unit, please consult your nearest Sony service facility.

Specifications

System

Video recording system

Rotary two-head helical scanning FM system

Audio recording system

Standard: Rotary head FM system (2 channels)
PCM: PCM system (2 channels)

Video signal

EV-S9000E AE/NP/VC:
CCIR standard, PAL colour
System B/G
EV-S9000E B:
CCIR standard, PAL/SECAM colour
System L and B/G
EV-S9000E UB:
CCIR standard, PAL colour
System I

Usable cassettes

8 mm video format cassettes

Tape speed

SP: 20.051 mm/sec.
LP: 10.058 mm/sec.

Recording/playback time

SP: 2 hrs., LP: 4 hrs. (using a Sony E5-120 cassette)
SP: 1.5 hrs., LP: 3 hrs. (using a Sony E5/P5-90 cassette)

Fast-forward/rewind time

2 min. 15 sec.
1 min. (high-speed rewind)
(using a Sony E5/P5-90 cassette)

Channel coverage

EV-S9000E AE/NP/VC and B (system B/G):
VHF E2 – E12 (A – H *Italian model only*)
CATV S01 – S03, S1 – S20
HYPER S21 – S41
UHF E21 – E69
EV-S9000E B (system L):
UHF F2 – F10
CATV B – Q
HYPER S21 – S41
UHF F21 – F69
EV-S9000E UB:
UHF B21 – B61

RF output signal

EV-S9000E AE/NP/VC/B:
UHF channels E30 – E39 (variable)
EV-S9000E UB:
UHF channels B30 – B39 (variable)

Stereo/bilingual system

EV-S9000E AE/NP/VC:
German two carrier system
EV-S9000E NP:
B/G NICAM
EV-S9000E UB:
I NICAM

Inputs and outputs

Antenna

75-ohm asymmetrical aerial socket

EURO-AV: LINE 1

21-pin
Video input: pin 20
Audio input: pins 2 and 6
Video/luminance output: pin 19
Chrominance output: pin 15
Audio output: pins 1 and 3

CANAL PLUS (EV-S9000E B/NP)

21-pin

PAY-TV (EV-S9000E VC)

Video input: pin 20
Audio input: pins 2 and 6
Video output: pin 19
Audio output: pins 1 and 3

LINE IN 2 and 3

S VIDEO IN (4-pin mini DIN) 1 each
Y: 1 Vp-p 75 ohms (unbalanced), sync negative
C: 0.3 Vp-p (colour burst) 75 ohms (unbalanced)
VIDEO IN (phono jack) 1 each
Input signal: 1 Vp-p, 75 ohms (unbalanced), sync negative
AUDIO IN (phono jack) (2 each)
Input level: -7.5 dBs (0 dBs = 0.775 Vrms)
Input impedance: more than 47 kilohms

LINE OUT

S VIDEO OUT (4-pin mini DIN)
Y: 1 Vp-p 75 ohms (unbalanced), sync negative
C: 0.3 Vp-p (colour burst) 75 ohms (unbalanced)
VIDEO OUT (phono jack)
Output signal: 1 Vp-p, 75 ohms (unbalanced), sync negative
AUDIO OUT (phono jack)
Standard output: -7.5 dBs at load impedance 47 kilohms
Output impedance: less than 10 kilohms

Microphone input

Minijack -60 dBs, for low impedance microphone

Headphone jack

Stereo minijack -26 dBs, 8 ohms

CONTROL S IN

Minijack

LANC C

Stereo mini-minijack

General

Power requirements

220 – 240 V AC, 50 Hz

Power consumption

38 W

Operating temperature

5°C to 40°C

Storage temperature

-20°C to 60°C

Dimensions

Approx. 466 x 119 x 366 mm (w/h/d)
including projecting parts and controls

Weight

Approx. 8.5 kg

Supplied accessories

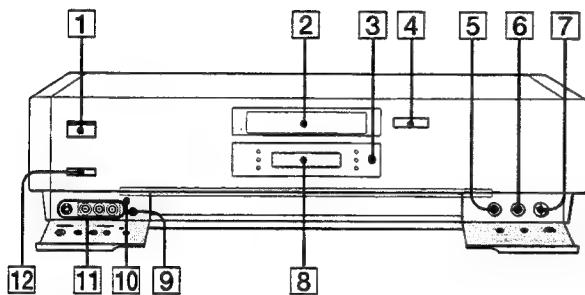
Remote commander (1)
R6 (size AA) batteries (2)
Aerial cable (1)
Audio cable (1)
Mains lead (1)
RF screwdriver (1)
S-video cable (1)
LANC cable (1)

Design and specifications are subject to change without notice.

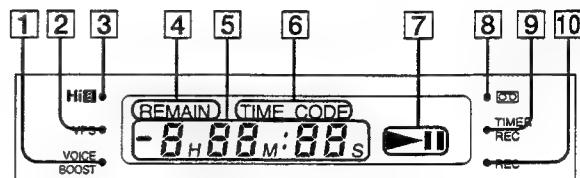
Index to parts and controls

Refer to the pages indicated in () for details.

Front panel



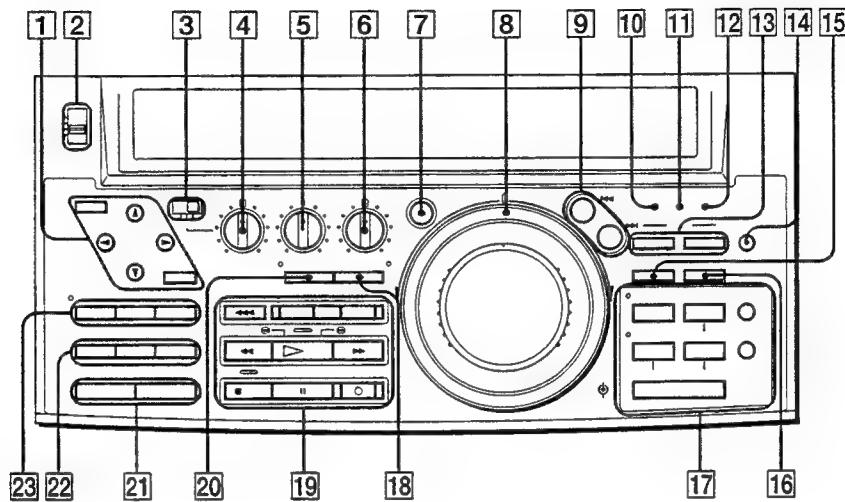
Front panel display window



- ① ON/STANDBY switch/indicator (11)
- ② Tape compartment (23)
- ③ Remote sensor (7)
- ④ ▲ EJECT button (23)
- ⑤ Microphone jack (63)
- ⑥ Headphone jack
- ⑦ MIN/MAX (headphone volume) control
- ⑧ Display window
- ⑨ LANC jack (54)
- ⑩ CL button
- ⑪ LINE IN 2 AUDIO/VIDEO/S jacks (63)
- ⑫ OPERATION PANEL OPEN/CLOSE switch (8)

- ① VOICE BOOST indicator (39)
- ② VPS indicator (EV-S9000E VC only) (35)
- ③ Hi8 indicator (5)
- ④ REMAIN indicator (24)
- ⑤ Linear time counter/Clock
- ⑥ TIME CODE indicator (58)
- ⑦ Tape operation indicator
- ⑧ Tape indicator
- ⑨ TIMER REC indicator
- ⑩ REC (recording) indicator (27)

Operation panel

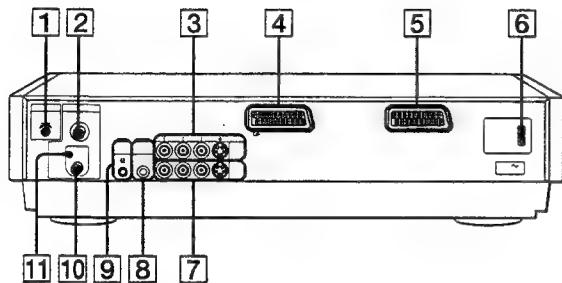


- | | |
|----------------------------------------------------|---------------------------------------------------------------------------------------------------|
| [1] MENU, CURSOR ▲/▼/◀/▶, and EXECUTE buttons (10) | [13] INDEX MARK/ERASE buttons (47) |
| [2] COMMAND MODE VTR OFF/1/2/3 switch (8) | [14] TAPE SPEED (SP/LP) button (27) |
| [3] AUDIO MONITOR PCM/MIX/STD (Hi-Fi) switch (25) | [15] COUNTER RESET button (24) |
| [4] STD AUDIO LEVEL control (64) | [16] COUNTER SELECT button (24) |
| [5] PCM REC BALANCE control (27) | [17] Tape editing buttons |
| [6] PCM REC LEVEL control (27) | [18] TIME CODE WRITE button (58) |
| [7] VISUAL SCAN button (46) | [19] Tape operation buttons |
| [8] JOG dial/SHUTTLE ring (23) | [20] AUDIO DUB button (63) |
| [9] ◀◀ / ▶▶ INDEX SEARCH buttons (45) | [21] PROGRAM buttons (11) |
| [10] TBC indicator (43) | [22] EDIT button (50)
VPS button (<i>EV-S9000E VC only</i>) (35)
INPUT SELECT button (11) |
| [11] Hi-Fi STEREO indicator (25) | [23] NR button (43)
TV/VTR button (11)
TIMER CHECK button (36) |
| [12] PCM indicator (25) | |

Index to parts and controls

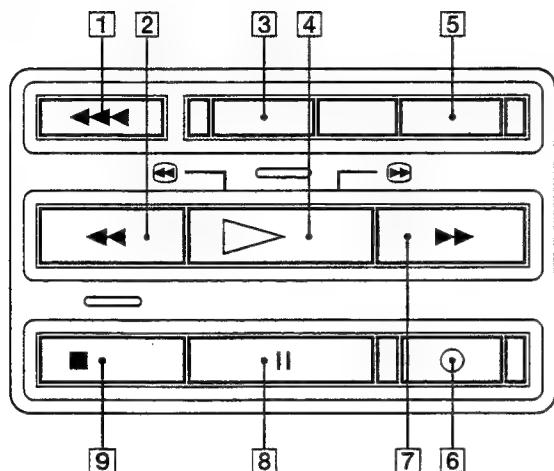
(continued)

Rear panel



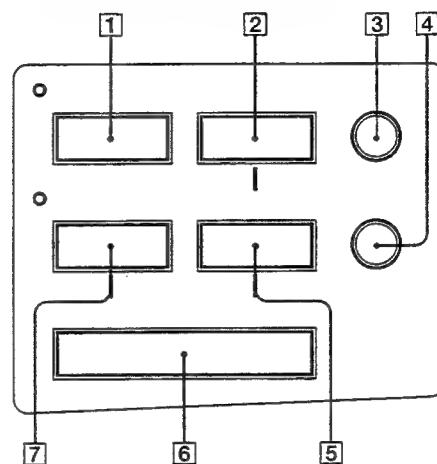
- [1]** RF CHANNEL screw (11)
- [2]** AERIAL OUT connector (9)
- [3]** LINE IN 3 AUDIO/VIDEO/S VIDEO jacks (10)
- [4]** EURO-AV (LINE 1) connector (10)
- [5]** CANAL+ connector (*EV-S9000E NP/B only*)/
PAY-TV DECODER connector (*EV-S9000E VC only*) (20)
- [6]** AC IN connector (9)
- [7]** LINE OUT AUDIO/VIDEO/S VIDEO jacks (10)
- [8]** CONTROL S IN jack (54)
- [9]** LANC connector (54)
- [10]** AERIAL IN connector (9)
- [11]** LOCAL/DX switch (22)

Tape operation buttons



- [1] HI-SPEED REW button (23)
- [2] REW button (23)
- [3] TIMER REC ON/OFF button (28)
- [4] PLAY button (23)
- [5] QUICK TIMER button (28)
- [6] REC button (27)
- [7] FF button (23)
- [8] PAUSE button (23)
- [9] STOP button (23)

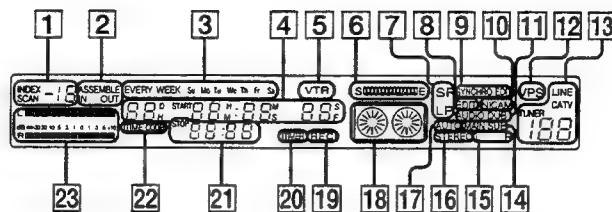
Tape editing buttons



- [1] LANC REMOTE button (57)
- [2] ASSEMBLE button (59)
- [3] EDIT MONITOR ON/OFF button (62)
- [4] BACK button (61)
- [5] MARK button (59)
- [6] SYNCHRO EDIT/START button (57)
- [7] EDIT STANDBY button (57)

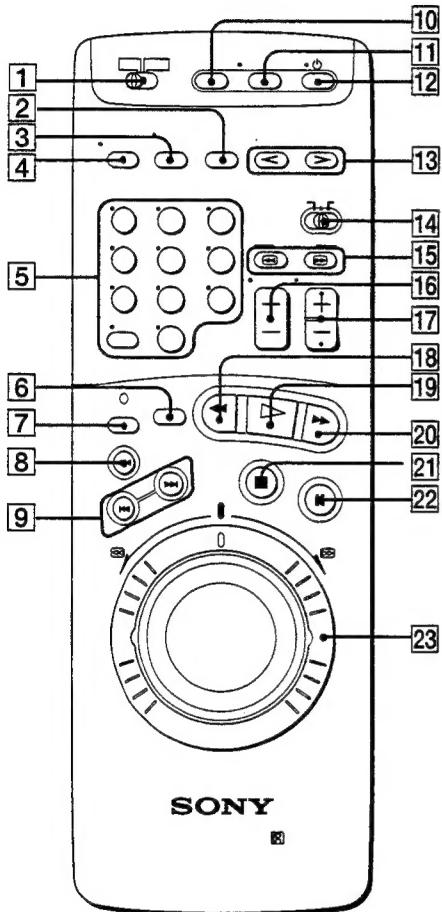
Index to parts and controls (continued)

Operation panel display window



- [1]** INDEX SCAN and index number indicator (45)
- [2]** ASSEMBLE IN/OUT indicator (59/60)
- [3]** EVERY WEEK and weekday indicators (35)
- [4]** Linear time counter/recording start time indicator (22)
- [5]** VTR indicator (11)
- [6]** Remaining tape length indicator
- [7]** SP/LP (tape speed) indicators (28)
- [8]** EDIT indicator (50)
- [9]** SYNCHRO EDIT indicator (54)
- [10]** NICAM indicator (30)
- [11]** AUDIO DUB indicator (63)
- [12]** VPS indicator (EV-S9000E VC only) (35)
- [13]** Channel number/input mode indicator (11)
- [14]** MAIN/SUB indicators (25)
- [15]** L/R indicators (25)
- [16]** STEREO indicator (25)
- [17]** AUTO indicator
- [18]** Cassette indicator
- [19]** REC indicator (27)
- [20]** TIMER indicator (28)
- [21]** Quick timer recording time/current time/recording stop time (19)
- [22]** TIME CODE indicator (58)
- [23]** Peak level meter

**Remote commander (front,
with cover closed)**

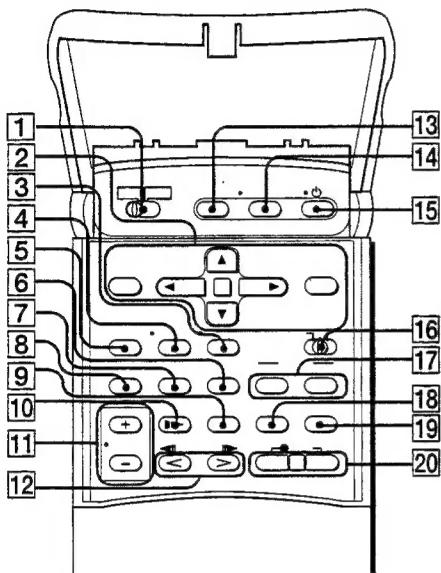


- 1 TV/VTR remote control switch (7)
- 2 EDIT MONITOR button (62)
- 3 AUDIO MONITOR button (25)
- 4 DISPLAY button (24)
- 5 Programme number buttons and -/+ button (13)
- 6 DIGITAL SCAN button (38)
- 7 JOG/SHUTTLE button (38)
- 8 <<< HI-SPEED REW button (23)
- 9 <</>> INDEX SEARCH buttons (45)
- 10 TIMER REC ON/OFF button (28)
- 11 TV/VTR button (11)
- 12 (on/standby) button (11)
- 13 </> SHUTTLE EDIT buttons (50)
- 14 COMMAND MODE VTR 1/2/3 switch (8)
- 15 <</>> SEARCH buttons (23)
- 16 VOL (volume) +/− button
- 17 PROG (programme) +/− button (11)
- 18 << REW button (23)
- 19 >> PLAY button (23)
- 20 >>> FF button (23)
- 21 ■ STOP button (23)
- 22 ■ PAUSE button (23)
- 23 JOG dial/SHUTTLE ring (23)

Index to parts and controls

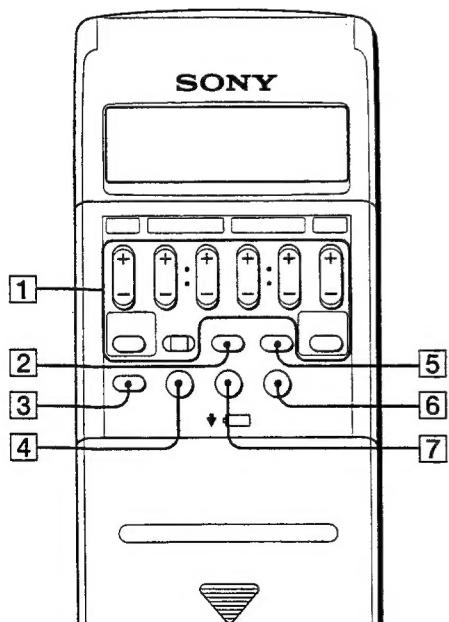
(continued)

Remote commander (front, with cover opened)



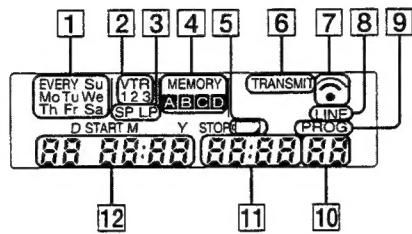
- [1]** **TV/VTR** remote control switch (7)
- [11]** PROG +/− buttons (11)
- [2]** Menu buttons (10)
 - MENU button
 - ▲/▼/◀/▶ CURSOR buttons
 - EXECUTE button
- [12]** ◀/▶ FRAME
⟨/⟩ buttons (38)
- [3]** VOICE BOOST button (39)
- [13]** TIMER REC ON/OFF button (28)
- [4]** DISPLAY button (24)
- [14]** TV/VTR button (11)
- [5]** VISUAL SCAN button (46)
- [15]** (on/standby) button (11)
- [6]** COUNTER SELECT button (24)
- [16]** COMMAND MODE VTR 1/2/3 switch (8)
- [7]** TAPE RETURN button (38)
- [17]** INDEX MARK/ERASE buttons (47)
- [8]** COUNTER RESET button (24)
- [18]** TAPE SPEED button (27)
- [9]** X2 (two-times speed) button (38)
- [19]** INPUT SELECT button (11)
- [10]** ▶ SLOW button (38)
- [20]** ● REC buttons (27)

Remote commander (rear, with cover opened)



- [1]** Timer recording/clock buttons (19, 32)
 - [1]** TIMER SET button
 - [2]** DAY button
 - [3]** START time buttons
 - [4]** STOP time buttons
 - [5]** PROG +/− button
 - [6]** TRANSMIT button
 - CLOCK SET button
- [2]** TAPE SPEED button (32)
- [3]** MEMORY button (34)
- [4]** TIMER ON SCREEN button (36)
- [5]** INPUT SELECT button (32)
- [6]** TIMER CLEAR button (36)
- [7]** TIMER CHECK button (36)

Remote commander display window



- [1] EVERY and weekday indicators (35)
- [2] VTR 1/2/3 (command mode) indicator (8)
- [3] SP/LP (tape speed) indicator (28)
- [4] MEMORY **A B C D** indicator (34)
- [5] Battery status indicator (7)
- [6] TRANSMIT indicator (19)
- [7] Execution signal indicator (33)
- [8] LINE indicator
- [9] PROG indicator
- [10] Programme channel/line input indicator
- [11] Timer preset end time indicator (32)
- [12] Timer preset date and start time indicator (32)

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